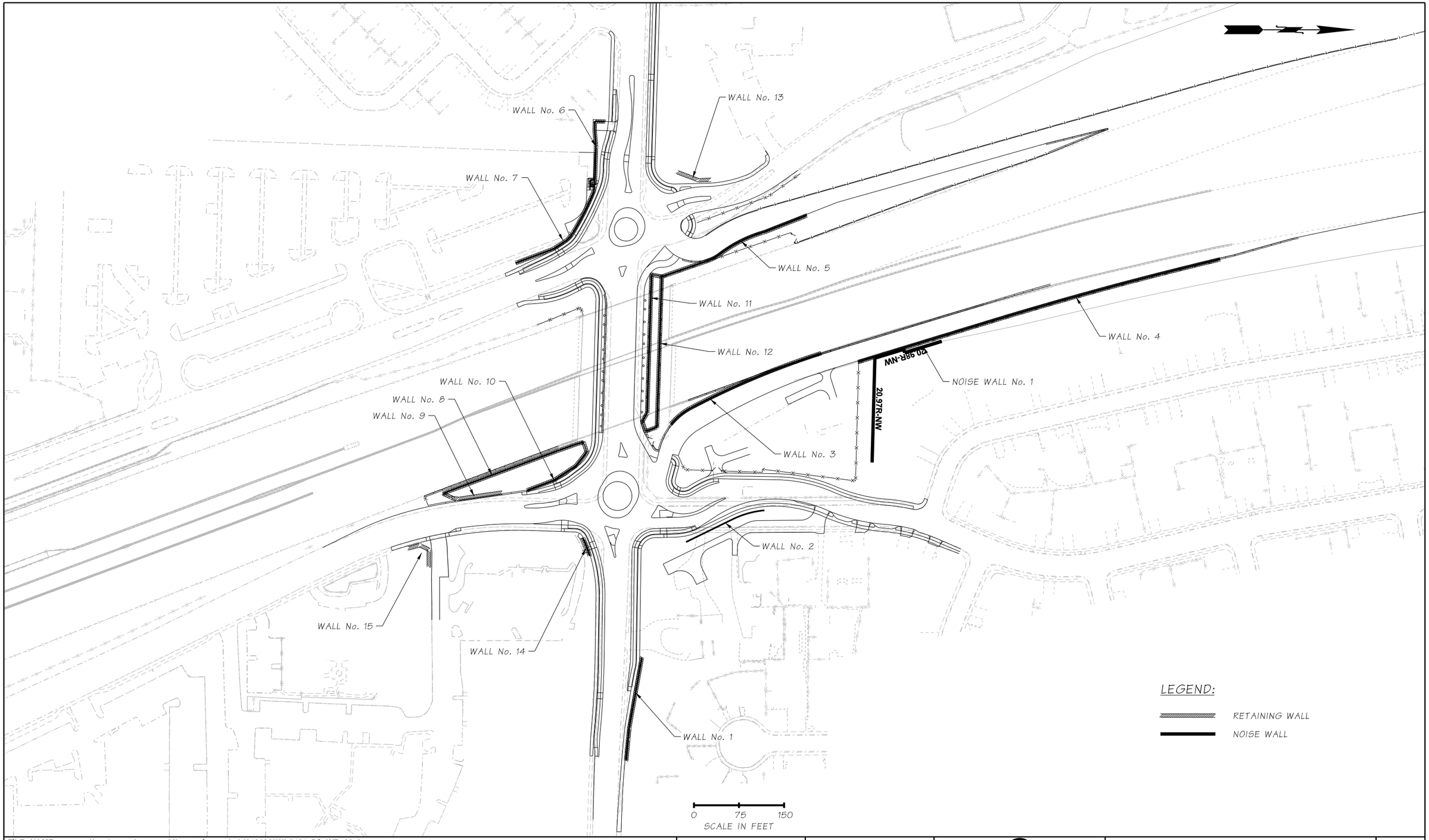

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CHECKED BY	Y. POLYAKOV						
PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER		
CONTRACT NO.		LOCATION NO.

P.E. STAMP BOX — DATE

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Washington State Department of Transportation
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I-405
NE 132ND STREET INTERCHANGE PROJECT

WALL KEY MAP

PLAN REF NO
WR00

SHEET
OF
SHEETS

GENERAL NOTES:

1. GENERAL:

A. ALL WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE LATEST EDITION OF THE CURRENT DRAWINGS AND STANDARDS AS SPECIFIED.
B. DRAWINGS SHALL NOT BE SCALED. ANY DISCREPANCIES BETWEEN THE DRAWINGS SHALL BE REFERRED TO THE ENGINEER FOR CLARIFICATION PRIOR TO UNDERTAKING THE WORK.
C. VERIFY ALL ELEVATIONS, DIMENSIONS, AND EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF RECORD ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO INSTALLATION OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN THE EXISTING CONDITION AND THE CONTRACT DRAWINGS, OBTAIN DIRECTION FROM THE ENGINEER OF RECORD BEFORE PROCEEDING. DIMENSIONS NOTED AS PLUS OR MINUS (+/-) INDICATE UNVERIFIED DIMENSIONS AND ARE APPROXIMATE. PRIOR TO CONSTRUCTION, VERIFY THAT OVERHEAD OBSTRUCTIONS, INCLUDING ELECTRICAL LINES, DO NOT INTERFERE WITH THE USE OF DRILLING EQUIPMENT.
D. SUBMIT WORKING DRAWINGS PRIOR TO FABRICATION OR CONSTRUCTION FOR ALL STRUCTURAL ITEMS INCLUDING THE FOLLOWING: STRUCTURAL STEEL, MISCELLANEOUS METAL, TIEBACKS, AND SOIL NAILS. SUBMIT MIX DESIGNS FOR ALL SHOTCRETE, CAST-IN-PLACE CONCRETE, AND GROUT.
E. CONTRACTOR SHALL COORDINATE BOX CULVERT WIDTHS WIDTH REQUIRED FOR EACH PHASE OF ELEMENT (OPEN CULVERT, WALL, CULVERTS, ETC.) CONSTRUCTION.

2. REFERENCES:

A. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIAPL CONSTRUCTION DATED 2022, AND AMENDMENTS.
B. THESE STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, UNLESS OTHERWISE NOTED.
C. THE DESIGN IS BASED ON CORRESPONDANCES WITH THE PROJECT GEOTECHNICAL ENGINEER, GEOENGINEERS, INC.
D. WALLS TO BE CONSTRUCTED IN ACCORADANCE WITH GEOTECHNICAL RECCOMMENDATIONS.

3. DIMENSIONS:

A. ALL DIMENSIONS ARE HORIZONTAL AND VERTICAL UNLESS OTHERWISE SHOWN.
B. EXISTING GROUND LINE IS APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD.
C. EXISTING STRUCTURES ARE SHOWN ON THE PLANS WITH APPROXIMATE LOCATIONS AND DIMENSIONS BASED ON THE AVALIBLE AS-BUILT INFORMATION. THOSE SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD. ANY DISCREPANCIES LEADING TO SPATIAL CONFLICTS WITH NEW STRCUTURES SHALL BE REPORTED TO THE ENGINEER FOR REVIEW AND RESOLUTION.

4. STRUCTURAL COCNRETE:

A. CONCRETE

CONC CLASS	LOCATION	COMPRESSIVE STRENGTH AT 28 DAYS f'c [PSI]	SOIL NAIL FASCIA PANELS
4,000P	SOLDIER PILE SHAFTS	4,000 PSI	4,000 PSI
4,000	CAST-IN-PLACE CONCRETE WALLS	4,000 PSI	4,000 PSI
4,000	SHOTCRETE	4,000 PSI	4,000 PSI

ALL EXPOSED EDGES OF CONCRETE WITH AN ANGLE CHANGE GREATER THAN 50 DEGREES SHALL BE CHAMFERED ¾" UNLESS NOTED OTHERWISE ON THE DRAWINGS.

B. GROUT
MINIMUM REQUIRED COMPRESSIVE STRENGTH, F'C = 5.0 KSI (28 DAY)
MINIMUM REQUIRED SOIL NAIL GROUT COMPRESSIVE STRENGTH, F'C = 1.5 KSI (3 DAY)
F'C = 3.0 KSI (28 DAY)
TWO INCH GROUT CUBES SHALL BE MOLDED, CURED, & TESTED IN ACCORDANCE WITH CSA A179-14.

5. REINFORCING STEEL:

A. REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR ASTM A706 GRADE 60, UNLESS NOTED OTHERWISE.
B. ALL REINFORCING BAR BENDS AND STANDARD HOOKS SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
C. UNLESS OTHERWISE SHOWN ON THE PLAN, THE CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE 2".
D. MECHANICAL COUPLERS SHALL BE USED FOR REINFORCING BARS LARGER THAN #11. AT LEAST 125 PERCENT OF SPECIFIED YIELD STRENGTH OF THE BAR SHALL BE DEVELOPED.

5. REINFORCING STEEL (CON'T):

E. MECHANICAL ANCHORS: INSTALL IN CONFORMANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
F. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064 Fy=65ksi, FURNISH IN FLAT SHEETS NOT ROLLS. LAP SPLICE 2 SQUARE MESH MINIMUM.
G. STAGGER SPLICES TO PROVIDE NOT MORE THAN 50% OF REINFORCEMENT SPLICED AT ANY SECTION.

6. STRUCTURAL STEEL:

A. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS UNLESS NOTED OTHERWISE ON THE DRAWINGS:

SECTION	STANDARD	GRADE	STRENGTH
ANGLES & PLATES	ASTM A36	36	Fy=36 KSI
PLATES WHERE INDICATED	ASTM A572	50	Fy=50 KSI
PIPES	ASTM A53	B	Fy=35 KSI
WIDE FLANGE & H-PILE	ASTM A992	50	Fy=50 KSI
ANCHOR RODS	ASTM F1554	36	Fy=36 KSI

B. ALL FASTENERS SHALL BE HIGH STRENGTH BOLTS, ASTM A325 SLIP CRITICAL UNLESS NOTED OTHERWISE. BOLTS SHALL BE INSTALLED WITH ONLY THE HEAD END EXPOSED (IF FEASIBLE).
C. WELDING ELECTRODES SHALL BE 70XX SERIES CONFORMING TO ANSI AWS D1.1. WELDING SHALL BE CONDUCTED BY A WABO CERTIFIED WELDER.

7. SOIL NAILS WALLS:

A. GLOBAL AND INTERNAL STABILITY ANALYSES FOR SOIL NAIL WALLS WERE PERFORMED BY GEOENGINEERS, INC. RECOMMENDED MINIMUM SOIL NAIL LENGTHS, BAR SIZES, DECLINATIONS, AND NAIL SPACINGS SHOWN IN THE DRAWINGS ARE BASED ON THE RESULT OF THESE GEOTECHNICAL ANALYSES.
B. SOIL NAILS SHALL BE INSTALLED PERPENDICULAR TO WALL FACE, AS SEEN IN PLAN VIEW, UNO.
C. ALL SOIL NAILS SHALL CONFORM TO ASTM A615 GRADE 75.
D. STEEL HARDWARE: PROVIDE COMPATIBLE NUTS, SPHERICAL OR BEVELED WASHERS AND BAR COUPLERS. BAR COUPLERS SHALL DEVELOP AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR.
E. STEEL ELEMENTS SHALL RECEIVE CORROSION PROTECTION.
F. PROFILES SHOWN IN DRAWINGS ARE INDICATIVE OF CIP CONCRETE FASCIA AT BOTTOM OF WALL. IF PRECAST FASCIA AND FOOTINGS ARE TO BE USED, BOTTOM OF WALL ELEVATION IS EQUAL TO BOTTOM OF FOOTING. TOP OF WALL ELEVATIONS FOLLOW GRADE AT TOP OF WALL PLUS WALL EXTENSION SHOWN IN DETAILS.
G. NAIL INSTALLATION: DRILL HOLES FOR SOIL NAILS AT THE LOCATIONS AND TO THE LENGTHS SHOWN ON THE DRAWINGS. DRILL SOIL NAIL HOLES WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED NAILS. THIS MAY INVOLVE CASING THE HOLES OR OTHER METHODS FOR PROTECTION FROM CAVING. IMMEDIATELY SUSPEND DRILLING OPERATIONS IF GROUND MOVEMENT IS OBSERVED, IF THE SOIL NAIL WALL IS ADVERSELY AFFECTED, OR IF ADJACENT STRUCTURES ARE DAMAGED AS A RESULT OF THE DRILLING.
H. NAIL GROUTING: GROUT UNCASED DRILL HOLES AFTER INSTALLATION OF THE NAIL. DO NOT LEAVE OPEN ANY PORTION OF THE DRILL HOLE FOR MORE THAN 4 HOUR PRIOR TO GROUTING. CONTRACTOR SHALL PERFORM A PERFORMANCE TEST TO DEMONSTRATE THAT THE HOLE CAN REMAIN OPEN AND STABLE IN A 4-HOUR WINDOW. INJECT THE GROUT AT THE LOWEST POINT OF EACH DRILL HOLE THROUGH A TREMIE PIPE, HOLLOW-STEM AUGER, OR DRILL RODS WITH THE DRILL HOLE FILLED IN ONE CONTINUOUS OPERATION. KEEP THE CONDUIT DELIVERING THE GROUT BELOW THE SURFACE OF THE GROUT AS THE CONDUIT IS WITHDRAWN. WITHDRAW THE GROUTING CONDUIT AS THE DRILL HOLE IS FILLED IN A MANNER WHICH PREVENTS THE CREATION OF VOIDS.
I. NAIL TOLERANCES: DO NOT EXTEND THE SOIL NAILS BEYOND THE RIGHT-OF-WAY OR EASEMENT LIMITS SHOWN IN THE CONTRACT DOCUMENTS, UNLESS APPROVED OTHERWISE. CENTER NAILS WITHIN 1 INCH OF THE CENTER OF THE DRILL HOLE USING NAIL CENTRALIZERS OF SCHEDULE 40 PVC. AT THE EXCAVATED FACE, POSITION THE INDIVIDUAL NAILS PLUS OR MINUS 6 INCHES FROM THE DESIGN LOCATIONS SHOWN IN THE CONTRACT DRAWINGS. LOCATION TOLERANCES ARE APPLICABLE TO ONLY ONE NAIL AND NOT CUMULATIVE OVER LARGE WALL AREAS. AT THE POINT OF ENTRY, CONTROL THE VERTICAL AND HORIZONTAL NAIL ANGLES WITHIN PLUS OR MINUS 3 DEGREES OF THAT SHOWN ON THE CONTRACT DRAWINGS.
J. NAIL SETTING: SECURE EACH SOIL NAIL AT THE FACING WITH A STEEL PLATE AS SHOWN IN THE CONTRACT DRAWINGS. TIGHTEN THE NUT TO ACHIEVE FULL BEARING BEHIND THE PLATE. TIGHTEN THE NUT WITH AT LEAST 100 FOOT-POUNDS OF TORQUE.

7. SOIL NAILS WALLS: (CON'T):

K. FOR CONSTRUCTION OF SOIL NAIL WALLS, USE OF VERTICAL ELEMENTS OR OTHER MEANS OF STABILIZATION MAY BE REQUIRED DURING EXCAVATION. REFER TO GEOTECHNICAL RECOMMENDATIONS.
L. NAIL TESTING: PERFORM PROOF TESTING AND VERIFICATION TESTING OF SOIL NAILS PER SPECIFICATION 6-15.3(8).

8. WALL TRANSITIONS:

A. PROVIDE 1/2" PRE-MOLDED JOINT FILLER BETWEEN ABUTTING SURFACES OF WALLS AND OTHER STRUCTURES WHERE TRANSITIONS BETWEEN WALL TYPES OCCUR.
B. MINIMUM DISTANCE FROM EDGE OF WALL TO CENTERLINE OF EMBEDDED FENCE POST IS 6" UNO.
C. MINIMUM DISTANCE FROM EDGE OF WALL TO CENTERLINE OF STANCHION IS 12" UNO.
D. WHERE WALL TYPE TRANSITION OCCURS, PROVIDE SMOOTH TRANSITION OR A TRANSITION APPROVED BY THE ENGINEER. ABUTTING EDGES OF DIFFERING WALL TYPES SHOULD BE SUCH THAT NO SOIL IS LEFT UNSUPPORTED AND FACES ARE FLUSH.

9. SOLDIER PILES WALLS:

A. SHAFT EXCAVATION: EXCAVATE SHAFT TO DEPTHS AS SHOWN ON THE CONTRACT PLANS. SHAFT MINIMUM DIAMETER AS SHOWN ON THE CONTRACT PLANS. EXCAVATE SHAFTS WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED SHAFTS OR OTHER STRUCTURES USING TEMPORARY CASING HOLES OR OTHER METHODS OF PROTECTION FROM CAVING. DO NOT COMMENCE SHAFT EXCAVATION UNTIL THE SHAFT BACKFILL FOR THE ADJACENT SHAFTS HAS BEEN PLACED AND HAS REACHED A STRENGTH OF 100 PSI. ONCE THE EXCAVATION OPERATION HAS STARTED, EXCAVATE IN A CONTINUOUS OPERATION UNTIL THE EXCAVATION OF THE SHAFT IS COMPLETED.
B. PILE INSTALLATION: LOWER PILE INTO SHAFT USING CENTERING DEVICES AND SET VERTICALLY WITHIN THE SHAFT TO THE DESIGN DEPTH SHOWN ON THE CONTRACT DRAWINGS. ALIGN PILE FLANGES PARALLEL TO FUTURE EXCAVATION LINE, EXCEPT WHERE OTHERWISE NOTED.
C. SHAFT BACKFILLING: BACKFILL EXCAVATED SHAFT WITH CONCRETE AS SHOWN ON THE CONTRACT DRAWINGS. WHENEVER PRACTICAL, PLACE BACKFILL IN DRY SHAFT EXCAVATIONS. PLACE SHAFT BACKFILL BY A MEANS THAT PREVENTS SEGREGATION OF AGGREGATES. PLACE SHAFT BACKFILL IN ONE CONTINUOUS OPERATION TO THE TOP OF THE SHAFT. REMOVE TEMPORARY CASING, IF PRESENT, IN SUCH A MANNER AS TO PREVENT THE MOVEMENT OF THE STEEL PILE.
D. SHAFT/PILE TOLERANCES: CONSTRUCT SHAFTS SUCH THAT THE CENTER AT THE TOP OF THE SHAFT IS WITHIN 1 INCH OF THE DESIGN LOCATIONS SHOWN IN THE CONTRACT DRAWINGS, AND SUCH THAT SHAFTS ARE WITHIN 0.5 PERCENT OF PLUMB. CENTER STEEL PILES WITHIN SHAFTS. PILES SHALL NOT ENCROACH INTO THE EXCAVATION ENVELOPE. SOLDIER PILE ELEVATIONS SHALL BE WITHIN 3 INCHES OF THOSE SHOWN ON THE CONTRACT DRAWINGS.

10. TEMPORARY LAGGING:

A. SAWN LUMBER SHALL CONFORM TO THE REQUIREMENTS OF THE WET COAST LUMBER INSPECTION BEREAU (WCLIB), SECTION 123-B. LUMBER SHALL BE UNTREATED AND CONFORM TO THE SPECIES AND GRADE NOTED BELOW:
USE: SOLDIER PILE WALL LAGGING
GRADE: DOUGLAS FIR-LARCH NO. 2 OR BETTER
SIZE CLASS: BEAMS AND STRINGERS
BENDING DESIGN VALUE: Fb = 900 PSI
B. THE CONTRACTOR SHALL EXCAVATE THE WALL FACE AND INSTALL THE LAGGING IN SUCH A MANNER AS TO MAINTAIN A SAFE WORK PLACE AND AVOID EXCESSIVE SLOUGHING AND OVERBREAK. AS A MINIMUM, PRIOR TO PLACING THE SUBSEQUENT SET OF TIMBER LAGGING, THE CONTRACTOR SHALL NOT EXCAVATE MORE THAN 3 FEET BELOW THE CURRENT DEPTH OF LAGGED WALL FACE.
C. LAGGING SHALL BE PLACED WITHIN 1 HOUR OF FACE EXCAVATION. OVER-EXCAVATED ZONES BEHIND LAGGING BOARDS SHALL BE BACKFILLED WITH FREE-DRAINING MATERIAL.

LEGEND:

A / WRO1 — IDENTIFIES SECTION, VIEW OR DETAIL TAKEN OR SHOWN ON SHEET WRO1
A / - — TAKEN OR SHOWN ON THE SAME SHEET

AP	ANGLE POINT	—x—x— CHAIN LINK FENCE	– – OP – – OPTICAL CABLE
BOW	BACK OF WALL	WALL	– – BF – –
EG	EXISTING GRADE	– – W – – WATER MAIN	– – S – – SANITARY SEWER
FOW	FRONT OF WALL	– – UD – – UNDERDRAIN PIPE	
FG	FINISH GRADE		
P.G.A.	PERMANENT GROUND ANCHOR		
TOW	TOP OF WALL		
– – ST – –	STORM SEWER		
□	CATCH BASIN		

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ENTERED BY	P. AROONLAP
CHECKED BY	Y. POLYAKOV
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

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10	WASH
JOB NUMBER	
CONTRACT NO.	LOCATION NO.

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NE 132ND STREET INTERCHANGE PROJECT

GENERAL NOTES

PLAN REF NO WRO1
SHEET OF SHEETS

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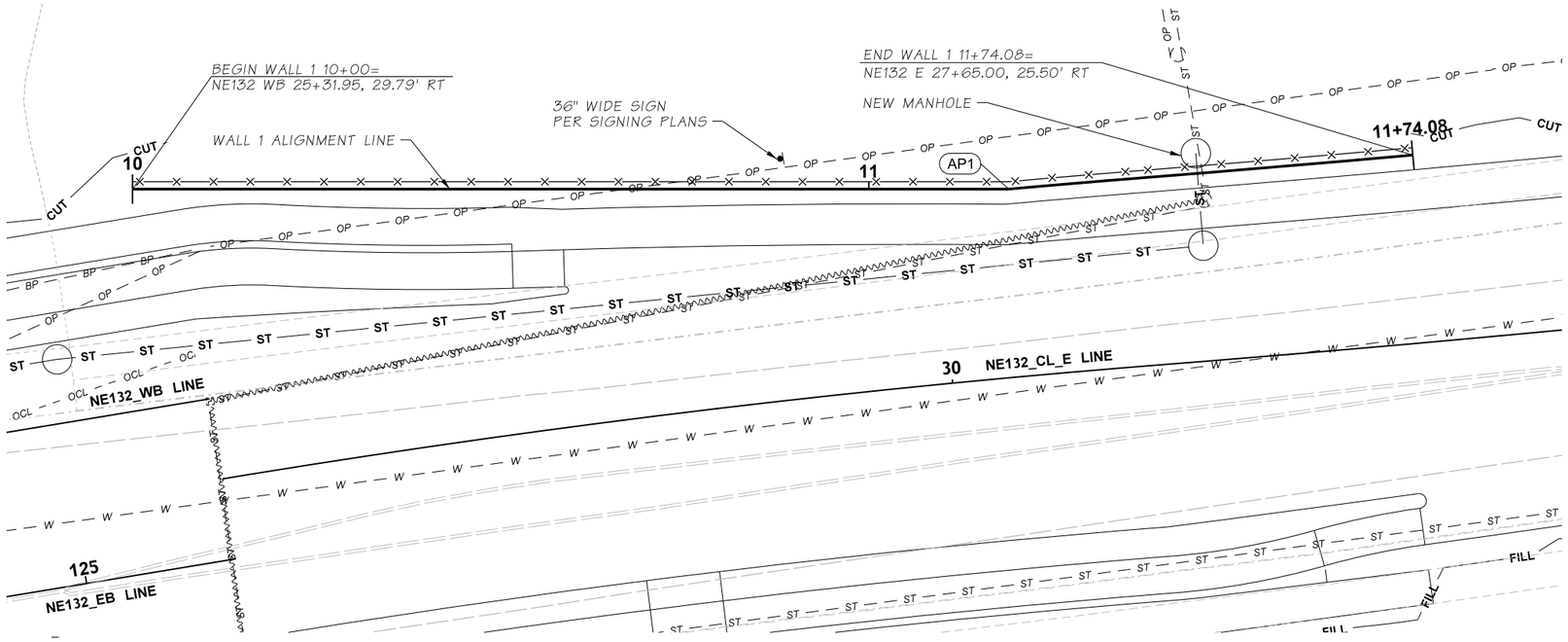
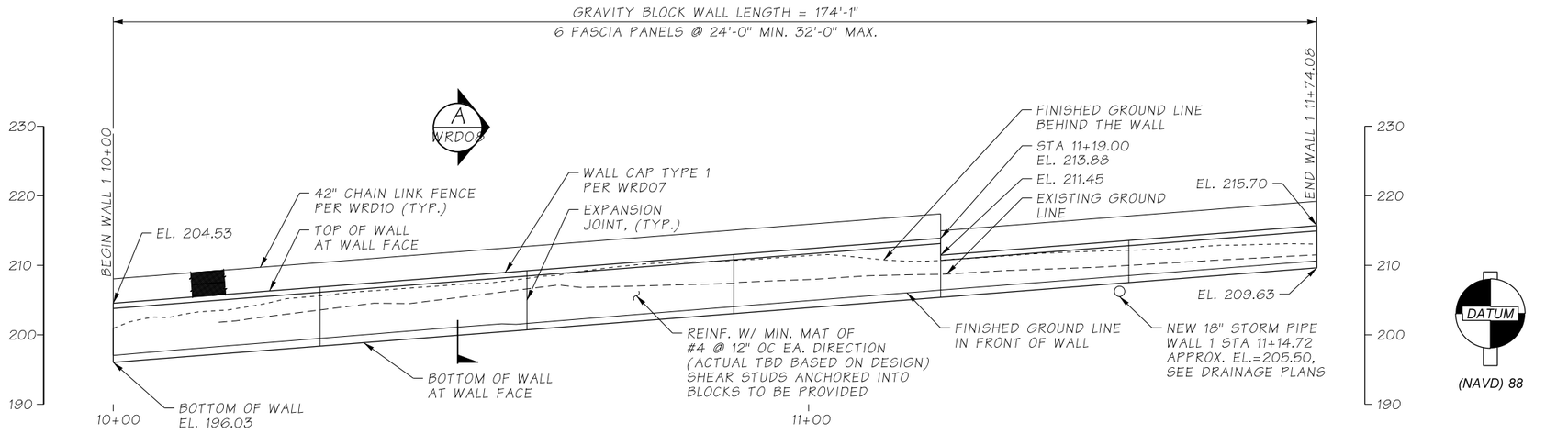


WALL 1 PLAN

ANGLE POINT LOCATION TABLE		
ANGLE POINT	WALL STA	NE132 CL E LINE STA
AP1	11+19.00	27+09.96 (25.50' RT)



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PROJ. ENGR.	E. PAO
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WALL 1 LAYOUT

PLAN REF NO
WR02

SHEET
OF
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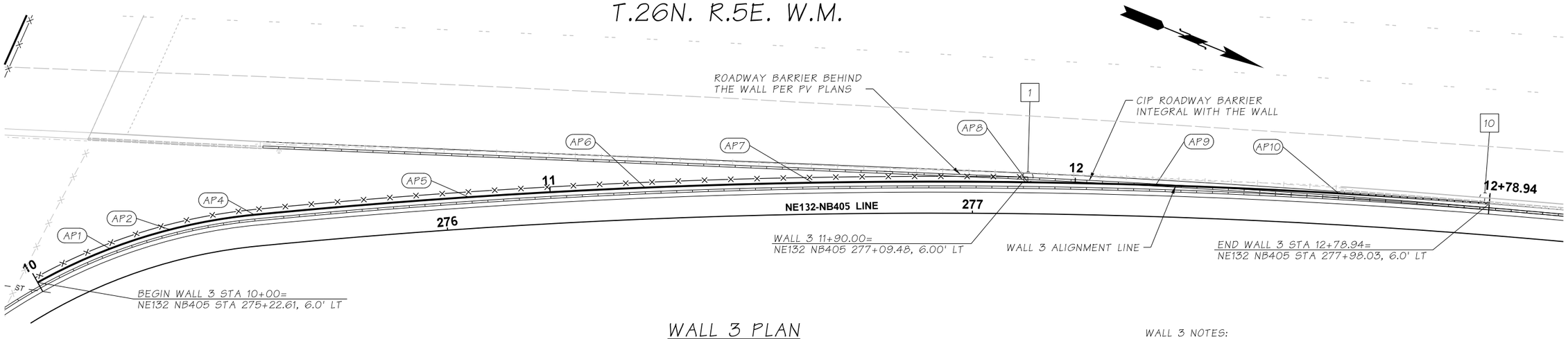
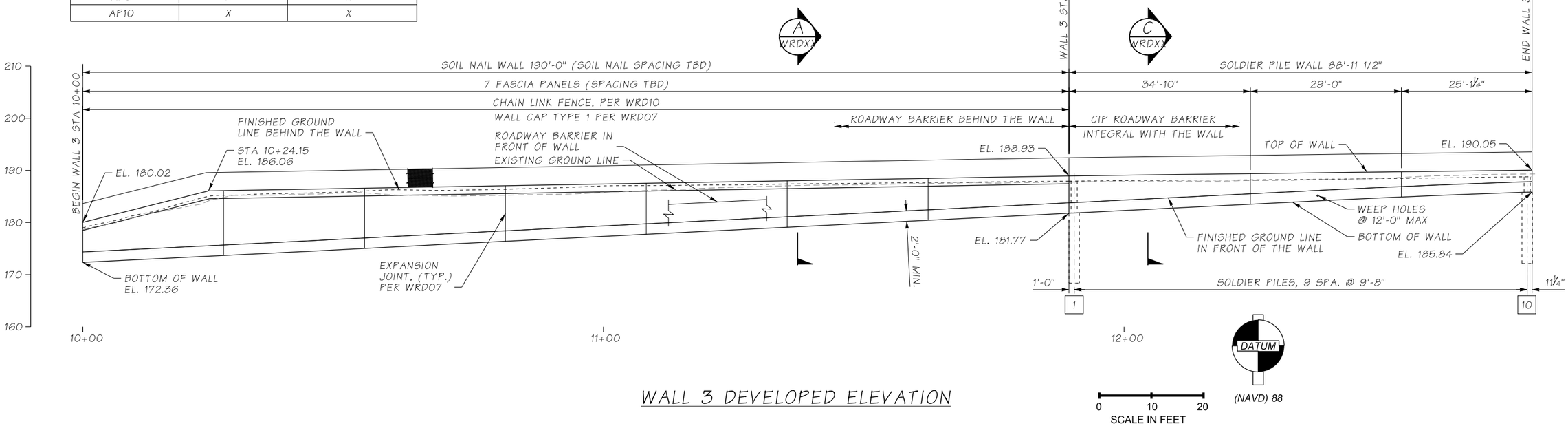


WALL 3 PLAN

ANGLE POINT LOCATION TABLE		
ANGLE POINT	WALL STA	NE132-NB405 STA
AP1	X	X
AP2	X	X
AP3	X	X
AP4	X	X
AP5	X	X
AP6	X	X
AP7	X	X
AP8	X	X
AP9	X	X
AP10	X	X

WALL 3 NOTES:

4. ⊡ INDICATES SOIL NAIL LOCATION
5. [X] INDICATES SOLDIER PILE ID
6. INDICATES 42" BLACK VINYL COATED CHAIN LINK FENCE PER WRD10
7. VERTICAL DATUM: NAVD 88



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PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

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NE 132ND STREET INTERCHANGE PROJECT

WALL 3 LAYOUT

PLAN REF NO WR03

SHEET OF SHEETS

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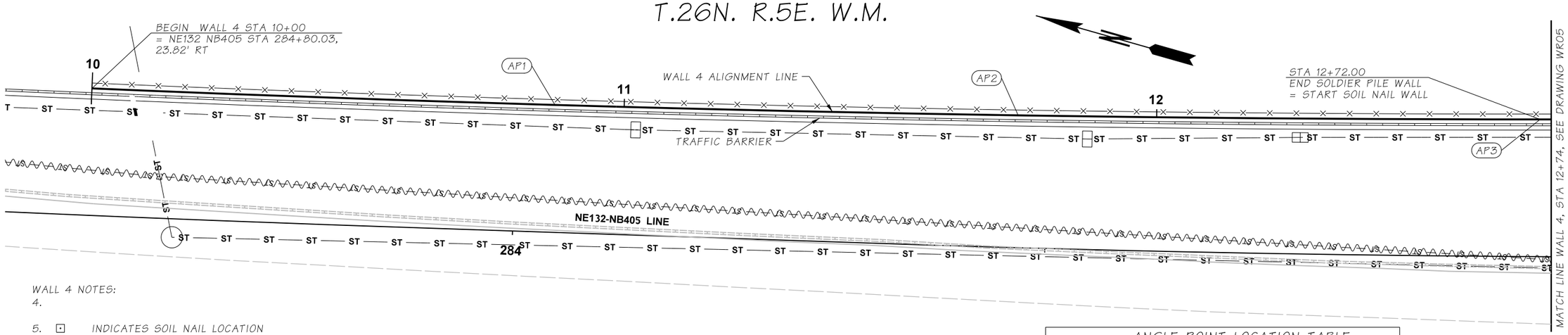


WALL 4 NOTES:

4.

5. ⊡ INDICATES SOIL NAIL LOCATION

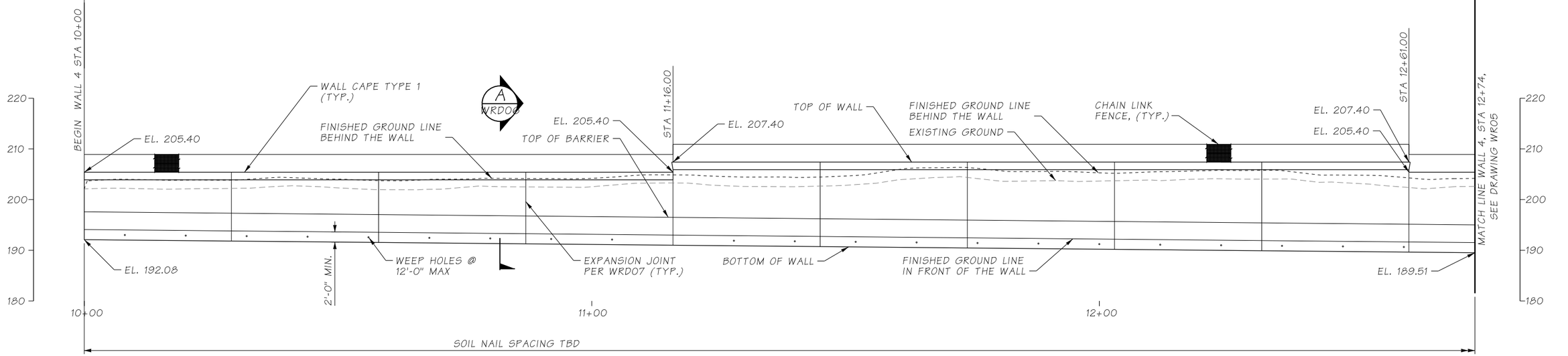
6. [X] INDICATES SOLDIER PILE ID

7. INDICATES 42" BLACK VINYL COATED CHAIN LINK FENCE PER WRD10

8. VERTICAL DATUM: NAVD 88

WALL 4 PLAN

ANGLE POINT LOCATION TABLE		
ANGLE POINT	WALL STA	NE132 NB405 STA
AP1	10+87.00	283+92.82 (23.90' RT)
AP2	11+74.00	283+05.69 (24.82' RT)
AP3	12+72.00	282+07.14 (25.75' RT)



WALL 4 DEVELOPED ELEVATION

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SCALE IN FEET

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PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

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NE 132ND STREET INTERCHANGE PROJECT

WALL 4 LAYOUT 1

PLAN REF NO WR04

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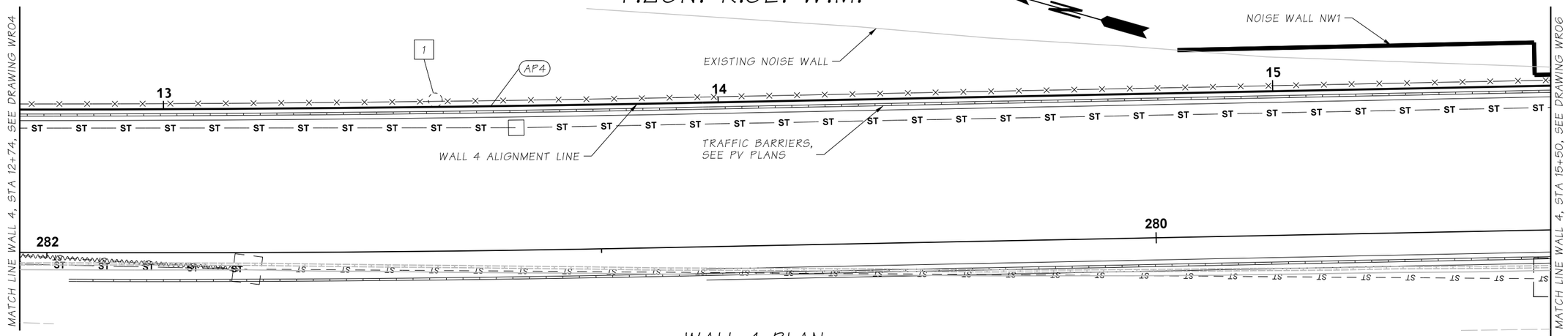
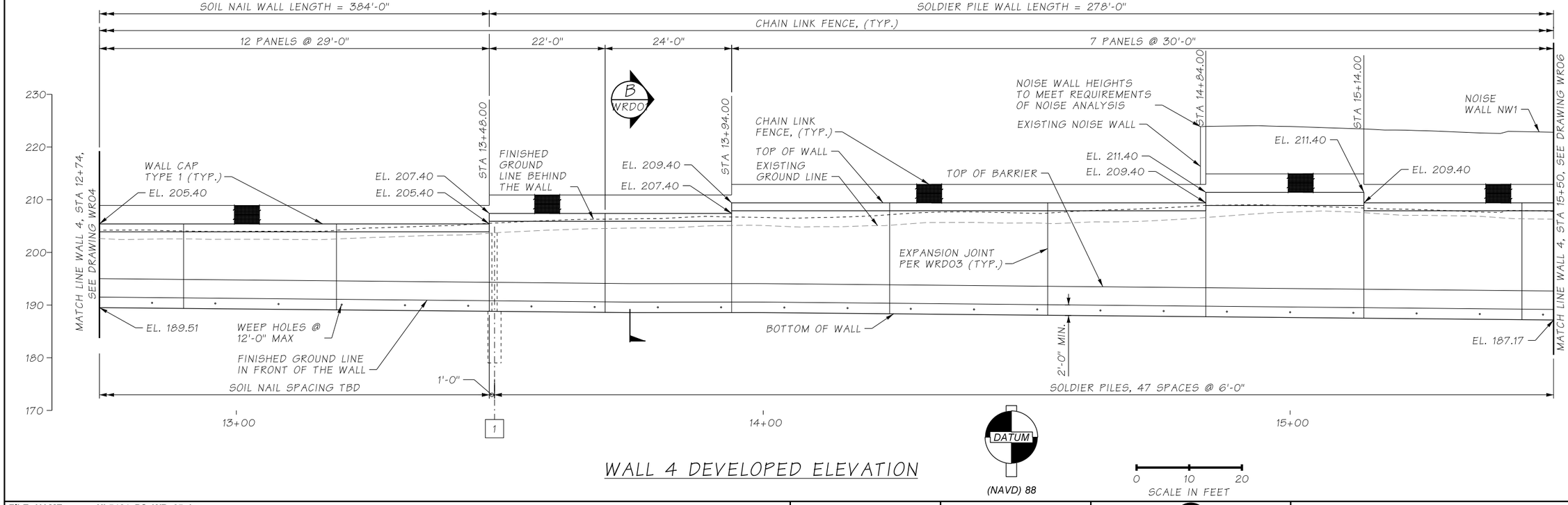


WALL 4 PLAN

ANGLE POINT LOCATION TABLE		
ANGLE POINT	WALL STA	NE132 NB405 STA
AP4	13+59.00	281+19.63 (26.03' RT)

NOTE:
SEE NOTES ON WRO4



WALL 4 DEVELOPED ELEVATION

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10	WASH	
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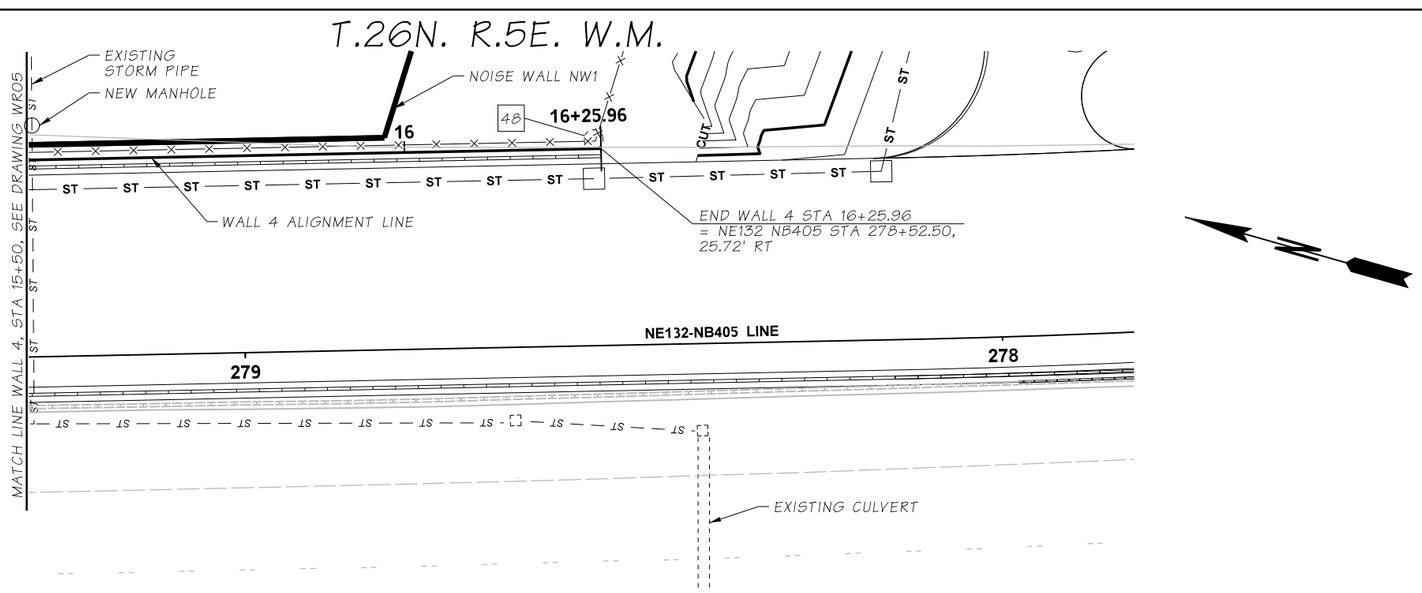
NE 132ND STREET INTERCHANGE
PROJECT

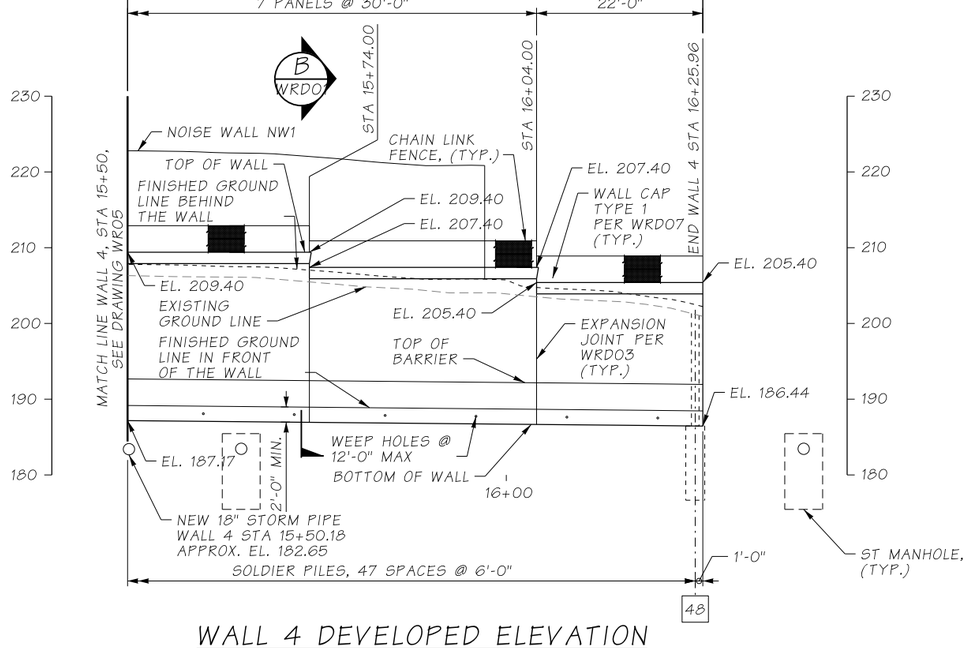
WALL 4 LAYOUT 2

PLAN REF NO
WRO5

SHEET
OF
SHEETS



WALL 4 PLAN



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DATUM
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SCALE IN FEET

NOTE:
SEE NOTES ON WR04

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DATE	12/30/2021	**PRELIMINARY**			JOB NUMBER		
PLOTTED BY	wsppw14ics02$	NOT FOR CONSTRUCTION					
DESIGNED BY	Y. POLYAKOV				CONTRACT NO.	LOCATION NO.	
ENTERED BY	D. DE LA CRUZ						
CHECKED BY							
PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

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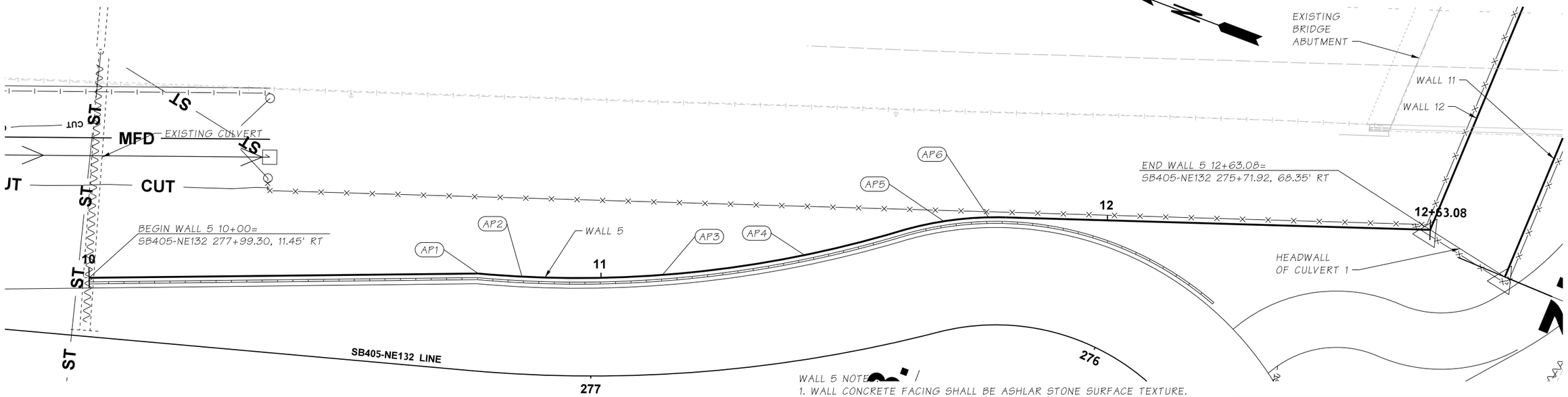
I-405
NE 132ND STREET INTERCHANGE PROJECT

WALL 4 LAYOUT 3

PLAN REF NO
WR06

SHEET
OF
SHEETS

T.26N. R.5E. W.M.



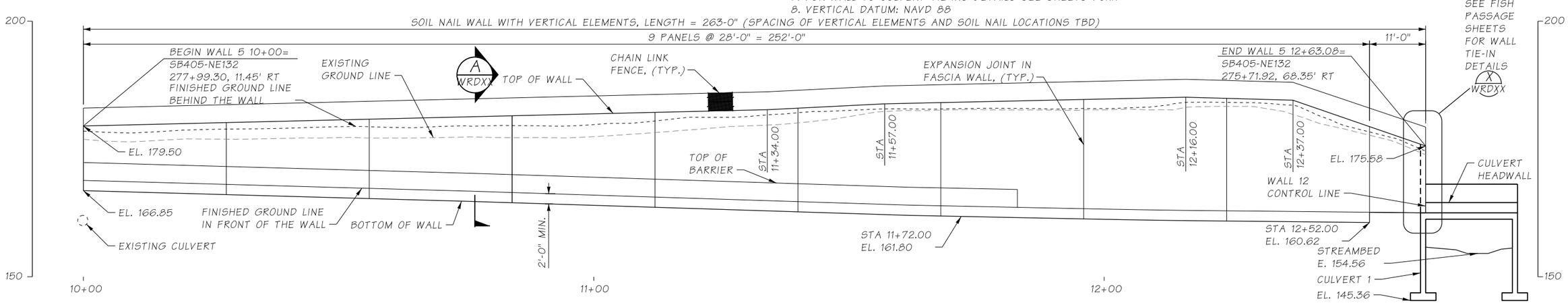
WALL 5 PLAN

WALL STATION	TOP OF WALL EL.
10+00.00	EL. 179.50
11+34.00	EL. 182.68
11+57.00	EL. 183.83
12+16.00	EL. 185.13
12+37.00	EL. 184.54
12+63.08	EL. 175.58

WALL 5 NOTES:

1. WALL CONCRETE FACING SHALL BE ASHLAR STONE SURFACE TEXTURE.
2. CONCRETE WALL FACING COLOR SHALL BE MT. ST. HELENS GRAY PIGMENTED SEALER. (VERIFY)
3. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
4. ⊡ INDICATES SOIL NAIL LOCATION
5. INDICATES 42" BLACK VINYL COATED CHAIN LINK FENCE PER WR??
6. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING BRIDGE FOUNDATIONS.
7. FOR WALL TO CULVERT TIE-INS DETAILS SEE SHEETS FCXX
8. VERTICAL DATUM: NAVD 88

ANGLE POINT LOCATION TABLE		
	WALL STA	SB405 NE132 STA
AP1	10+76.00	277+23.67 (19.99' RT)
AP2	10+84.00	277+14.48 (19.02' RT)
AP3	11+12.00	276+84.94 (19.37' RT)
AP4	11+40.00	276+54.72 (201.16' RT)
AP5	11+68.00	276+27.02 (21.00' RT)
AP6	11+77.00	276+21.04 (21.00' RT)



WALL 5 DEVELOPED ELEVATION

0 10 20
SCALE IN FEET

FILE NAME	XL5464_PS_WR_07.dgn
TIME	11:17:40 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER		
CONTRACT NO.	LOCATION NO.	

P.E. STAMP BOX — DATE

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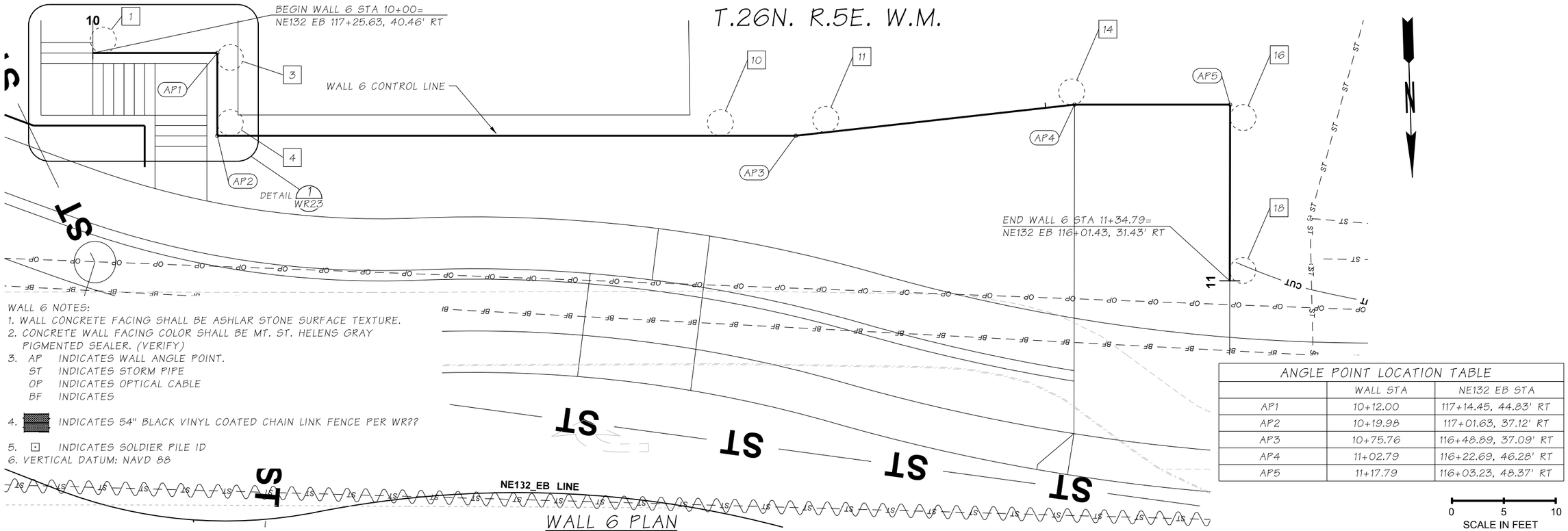
WALL 5 LAYOUT

PLAN REF NO WR07

SHEET OF SHEETS

T.26N. R.5E. W.M.

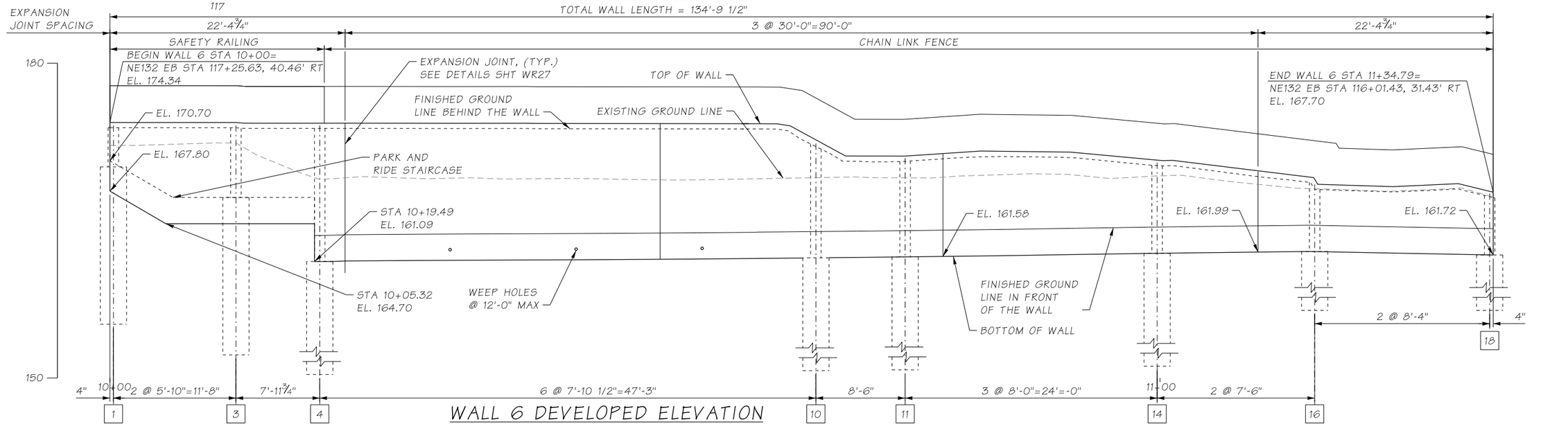


WALL 6 NOTES:
1. WALL CONCRETE FACING SHALL BE ASHLAR STONE SURFACE TEXTURE.
2. CONCRETE WALL FACING COLOR SHALL BE MT. ST. HELENS GRAY PIGMENTED SEALER. (VERIFY)
3. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
   OP INDICATES OPTICAL CABLE
   BF INDICATES
4. INDICATES 54" BLACK VINYL COATED CHAIN LINK FENCE PER WR??
5. ⊡ INDICATES SOLDIER PILE ID
6. VERTICAL DATUM: NAVD 88

ANGLE POINT LOCATION TABLE		
	WALL STA	NE132 EB STA
AP1	10+12.00	117+14.45, 44.83' RT
AP2	10+19.98	117+01.63, 37.12' RT
AP3	10+75.76	116+48.89, 37.09' RT
AP4	11+02.79	116+22.69, 46.28' RT
AP5	11+17.79	116+03.23, 48.37' RT

0 5 10
SCALE IN FEET

WALL 6 PLAN



WALL 6 DEVELOPED ELEVATION

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TIME	11:18:18 PM				10	WASH	
DATE	12/30/2021	**PRELIMINARY**			JOB NUMBER		
PLOTTED BY	wsppw14ics02$	NOT FOR CONSTRUCTION			CONTRACT NO.		LOCATION NO.
DESIGNED BY	Y. POLYAKOV						
ENTERED BY	D. DE LA CRUZ						
CHECKED BY							
PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

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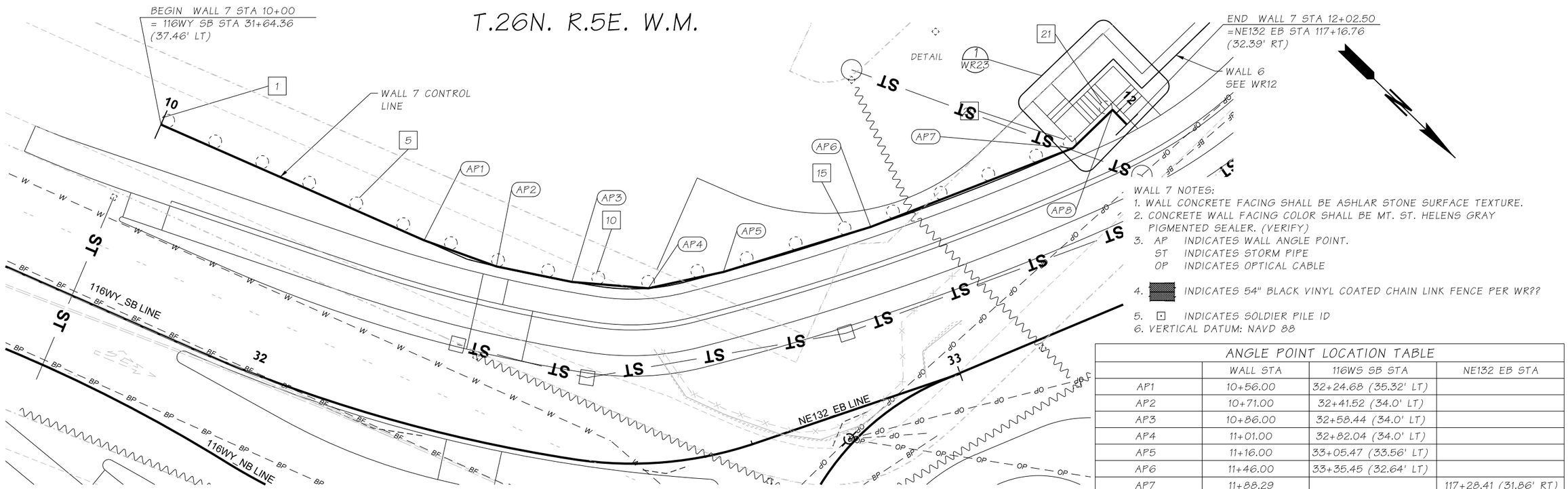
WALL 6 LAYOUT

PLAN REF NO WR08

SHEET OF SHEETS

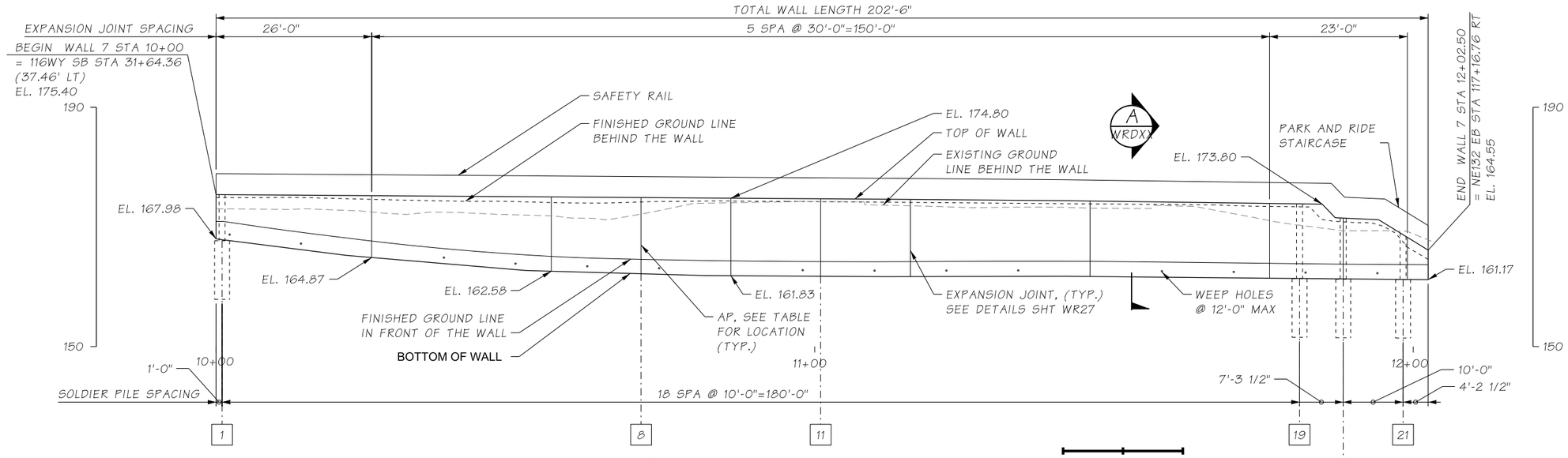


WALL 7 PLAN

WALL 7 NOTES:
1. WALL CONCRETE FACING SHALL BE ASHLAR STONE SURFACE TEXTURE.
2. CONCRETE WALL FACING COLOR SHALL BE MT. ST. HELENS GRAY PIGMENTED SEALER. (VERIFY)
3. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
   OP INDICATES OPTICAL CABLE
4. INDICATES 54" BLACK VINYL COATED CHAIN LINK FENCE PER WR??
5. INDICATES SOLDIER PILE ID
6. VERTICAL DATUM: NAVD 88

ANGLE POINT LOCATION TABLE

	WALL STA	116WS SB STA	NE132 EB STA
AP1	10+56.00	32+24.68 (35.32' LT)	
AP2	10+71.00	32+41.52 (34.0' LT)	
AP3	10+86.00	32+58.44 (34.0' LT)	
AP4	11+01.00	32+82.04 (34.0' LT)	
AP5	11+16.00	33+05.47 (33.56' LT)	
AP6	11+46.00	33+35.45 (32.64' LT)	
AP7	11+88.29		117+28.41 (31.86' RT)
AP8	11+99.01		117+18.43 (35.76' RT)



WALL 7 DEVELOPED ELEVATION

0 10 20
SCALE IN FEET

FILE NAME	XL5464_PS_WR_09.dgn
TIME	11:17:58 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
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REVISION	DATE	BY

REGION NO.	STATE
10	WASH

JOB NUMBER

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.

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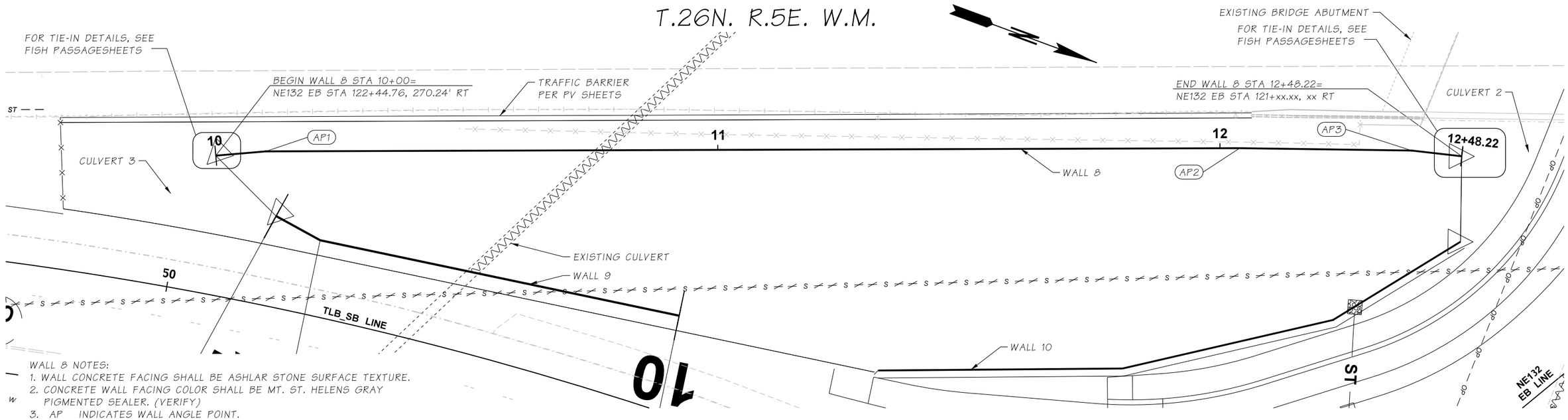
WALL 7 LAYOUT

PLAN REF NO
WR09

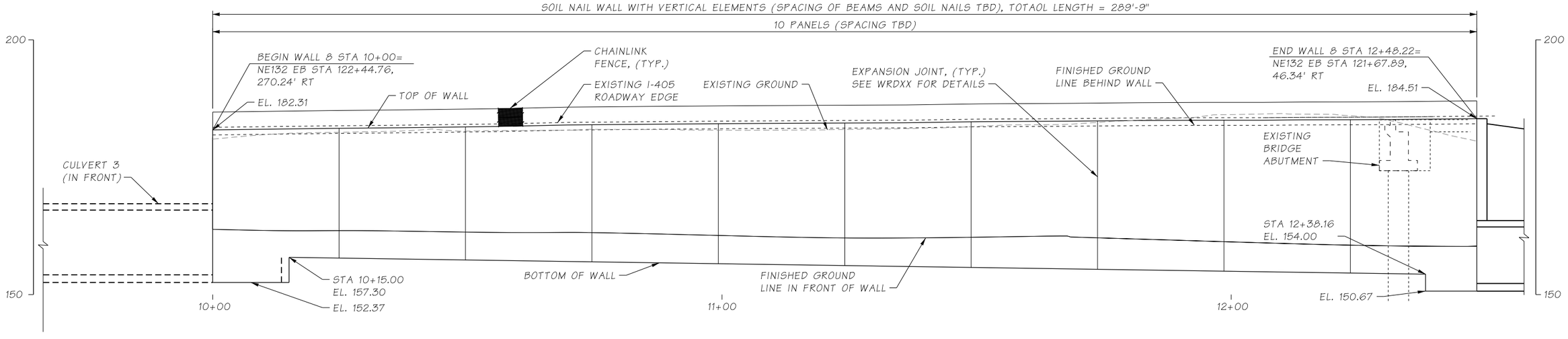
SHEET
OF
SHEETS



WALL 8 PLAN

WALL 8 NOTES:
1. WALL CONCRETE FACING SHALL BE ASHLAR STONE SURFACE TEXTURE.
2. CONCRETE WALL FACING COLOR SHALL BE MT. ST. HELENS GRAY PIGMENTED SEALER. (VERIFY)
3. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
   OP INDICATES OPTICAL CABLE
4. ⊡ INDICATES SOIL NAIL LOCATION
5. INDICATES 42" BLACK VINYL COATED CHAIN LINK FENCE PER WR??
6. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING BRIDGE FOUNDATIONS.
7. FOR WALL TO CULVERT TIE-INS DETAILS SEE SHEETS FCXX
8. VERTICAL DATUM: NAVD 88

ANGLE POINT LOCATION TABLE		
	WALL STA	NE132 EB STA
AP1	10+10.00	122+42.25 (232.10' RT)
AP2	12+03.93	122+00.95 (75.66' RT)
AP3	12+38.18	121+74.98 (53.65' RT)



WALL 8 DEVELOPED ELEVATION

0 10 20
SCALE IN FEET

FILE NAME	XL5464_PS_WR_10.dgn
TIME	11:18:58 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.
JOB NUMBER
CONTRACT NO. | LOCATION NO.

P.E. STAMP BOX — DATE
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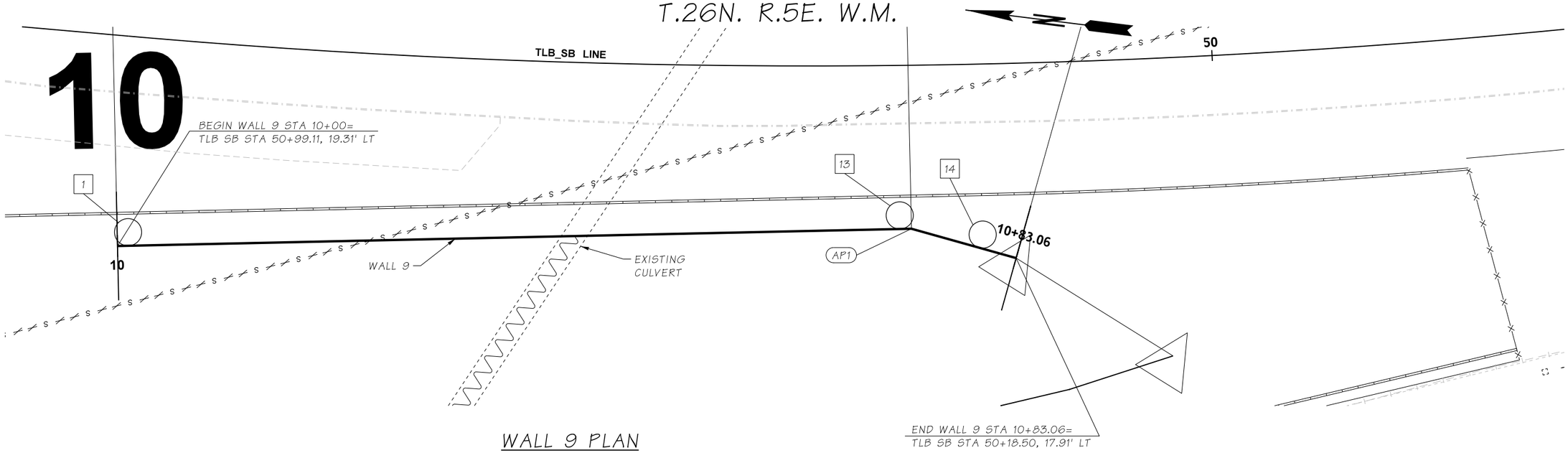
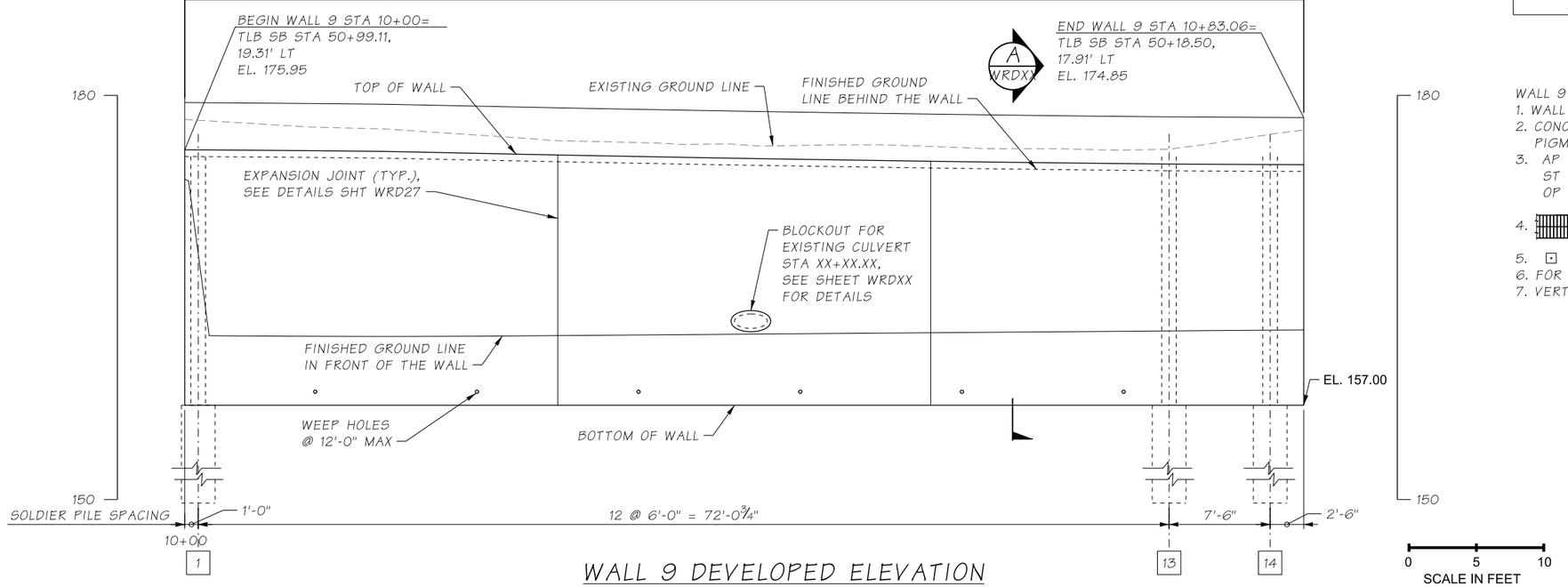
WALL 8 LAYOUT

PLAN REF NO WR10
SHEET
OF
SHEETS

T.26N. R.5E. W.M.



WALL 9 PLAN



WALL 9 DEVELOPED ELEVATION

ANGLE POINT LOCATION TABLE		
	WALL STA	TLB SB LINE STA
AP1	10+73.05	50+27.86 (15.03' LT)

WALL 9 NOTES:
1. WALL CONCRETE FACING SHALL BE ASHLAR STONE SURFACE TEXTURE.
2. CONCRETE WALL FACING COLOR SHALL BE MT. ST. HELENS GRAY PIGMENTED SEALER. (VERIFY)
3. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
   OP INDICATES OPTICAL CABLE
4. INDICATES 54" PEDESTRIAN RAILING PER WRXX
5. ⊡ INDICATES SOLDIER PILE ID
6. FOR WALL TO CULVERT TIE-INS DETAILS SEE SHEETS FCXX
7. VERTICAL DATUM: NAVD 88

FILE NAME	XL5464_PS_WR_11.dgn
TIME	11:18:06 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER		
CONTRACT NO.		LOCATION NO.

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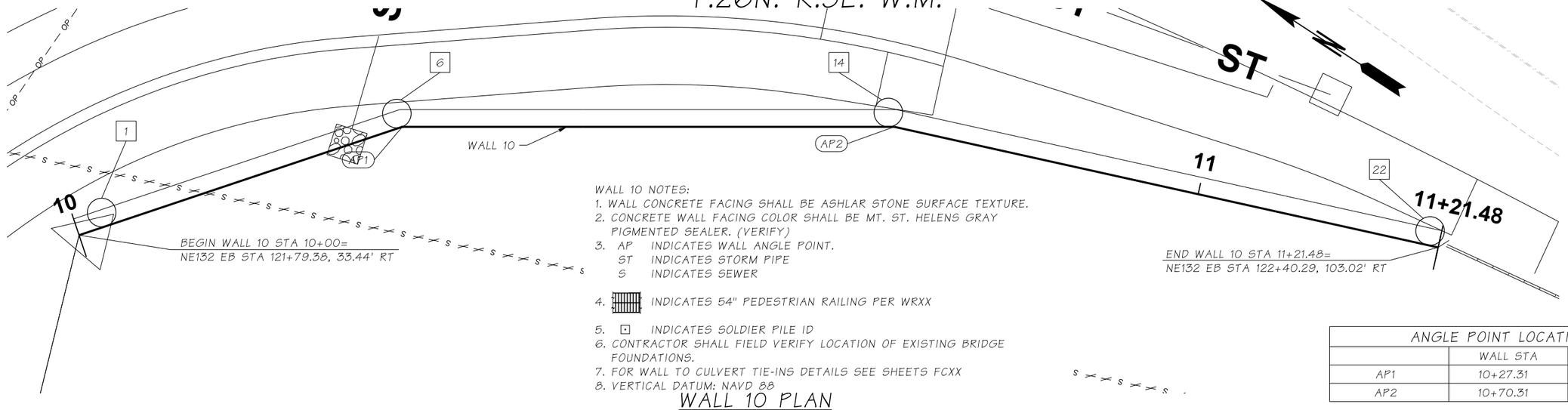
WALL 9 LAYOUT

PLAN REF NO
WR11

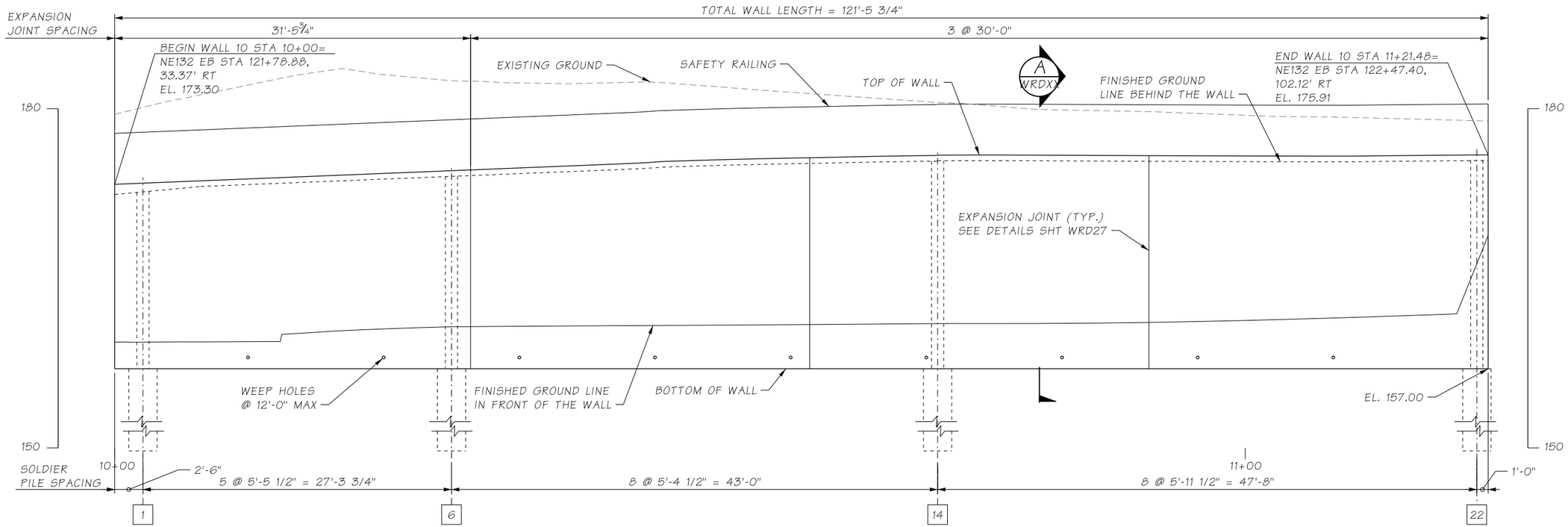
SHEET
OF
SHEETS



WALL 10 NOTES:
1. WALL CONCRETE FACING SHALL BE ASHLAR STONE SURFACE TEXTURE.
2. CONCRETE WALL FACING COLOR SHALL BE MT. ST. HELENS GRAY PIGMENTED SEALER. (VERIFY)
3. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
   S INDICATES SEWER
4. INDICATES 54" PEDESTRIAN RAILING PER WRXX
5. ⊡ INDICATES SOLDIER PILE ID
6. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING BRIDGE FOUNDATIONS.
7. FOR WALL TO CULVERT TIE-INS DETAILS SEE SHEETS FCXX
8. VERTICAL DATUM: NAVD 88

ANGLE POINT LOCATION TABLE		
	WALL STA	NE132 EB STA
AP1	10+27.31	122+08.40 (37.50' RT)
AP2	10+70.31	122+30.84 (60.85' RT)

WALL 10 PLAN



WALL 10 DEVELOPED ELEVATION

0 5 10
SCALE IN FEET

FILE NAME	XL5464_PS_WR_12.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.	PLAN REF NO WR12
TIME	11:20:52 PM				JOB NUMBER			
DATE	12/30/2021							SHEET
PLOTTED BY	wsppw14ics02$	PRELIMINARY						OF
DESIGNED BY	Y. POLYAKOV	NOT FOR CONSTRUCTION			CONTRACT NO.	LOCATION NO.		SHEETS
ENTERED BY	D. DE LA CRUZ							
CHECKED BY								
PROJ. ENGR.	E. PAO							
REGIONAL ADM.		REVISION	DATE	BY				

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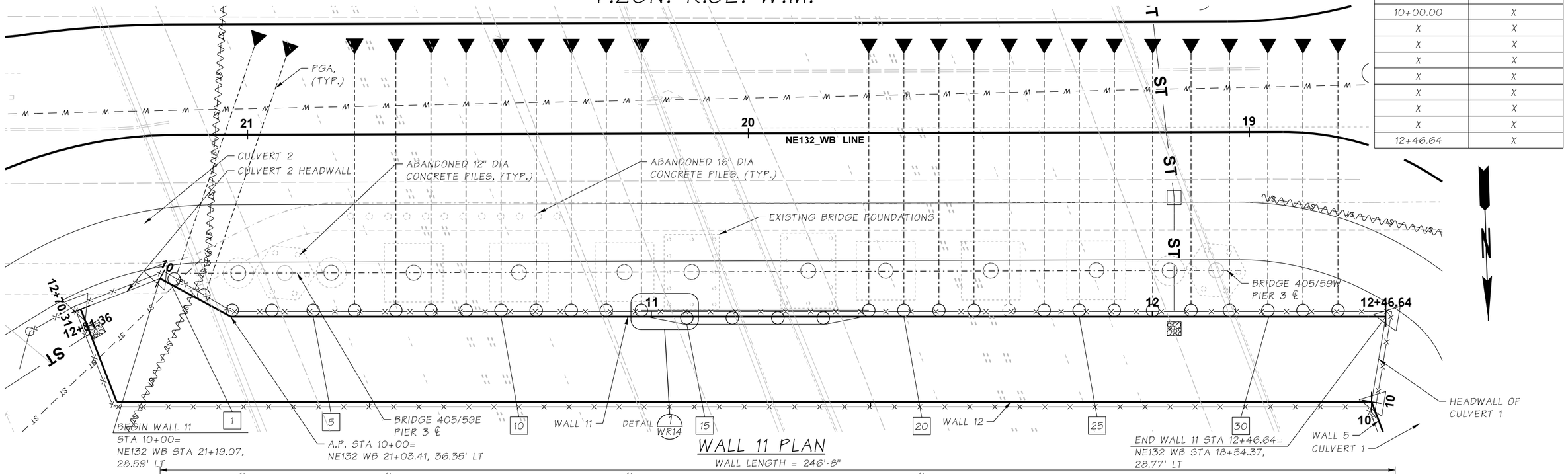
WALL 10 LAYOUT

T.26N. R.5E. W.M.

WALL STATION	TOP OF WALL EL.
10+00.00	X
X	X
X	X
X	X
X	X
X	X
X	X
X	X
12+46.64	X

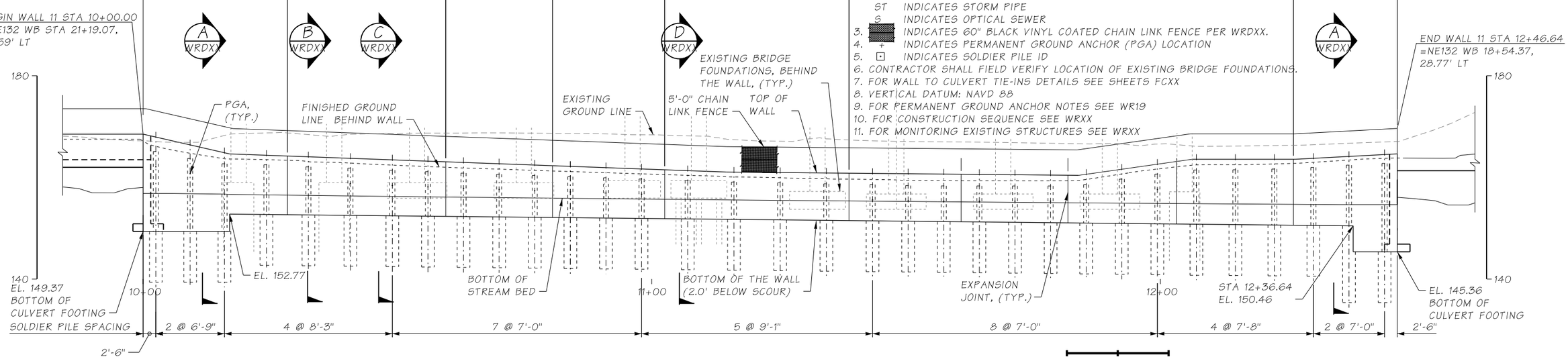


WALL 11 PLAN

WALL LENGTH = 246'-8"

SPACING OF FASCIA PANELS: 28'-4½" | 31'-1½" | 21'-0" | 22'-0½" | 36'-3" | 22'-0½" | 21'-0" | 21'-4" | 23'-0" | 20'-4"

WALL 11 NOTES:
1. WALL CONCRETE FACING SHALL HAVE SMOOTH TROWEL FINISH.
2. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
   S INDICATES OPTICAL SEWER
3. INDICATES 60" BLACK VINYL COATED CHAIN LINK FENCE PER WRDXX.
4. INDICATES PERMANENT GROUND ANCHOR (PGA) LOCATION
5. INDICATES SOLDIER PILE ID
6. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING BRIDGE FOUNDATIONS.
7. FOR WALL TO CULVERT TIE-INS DETAILS SEE SHEETS FCXX
8. VERTICAL DATUM: NAVD 88
9. FOR PERMANENT GROUND ANCHOR NOTES SEE WR19
10. FOR CONSTRUCTION SEQUENCE SEE WRXX
11. FOR MONITORING EXISTING STRUCTURES SEE WRXX



WALL 11 DEVELOPED ELEVATION

0 10 20
SCALE IN FEET

FILE NAME	XL5464_PS_WR_13.dgn
TIME	11:18:10 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
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REVISION | DATE | BY

REGION NO.	STATE
10	WASH

JOB NUMBER

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.

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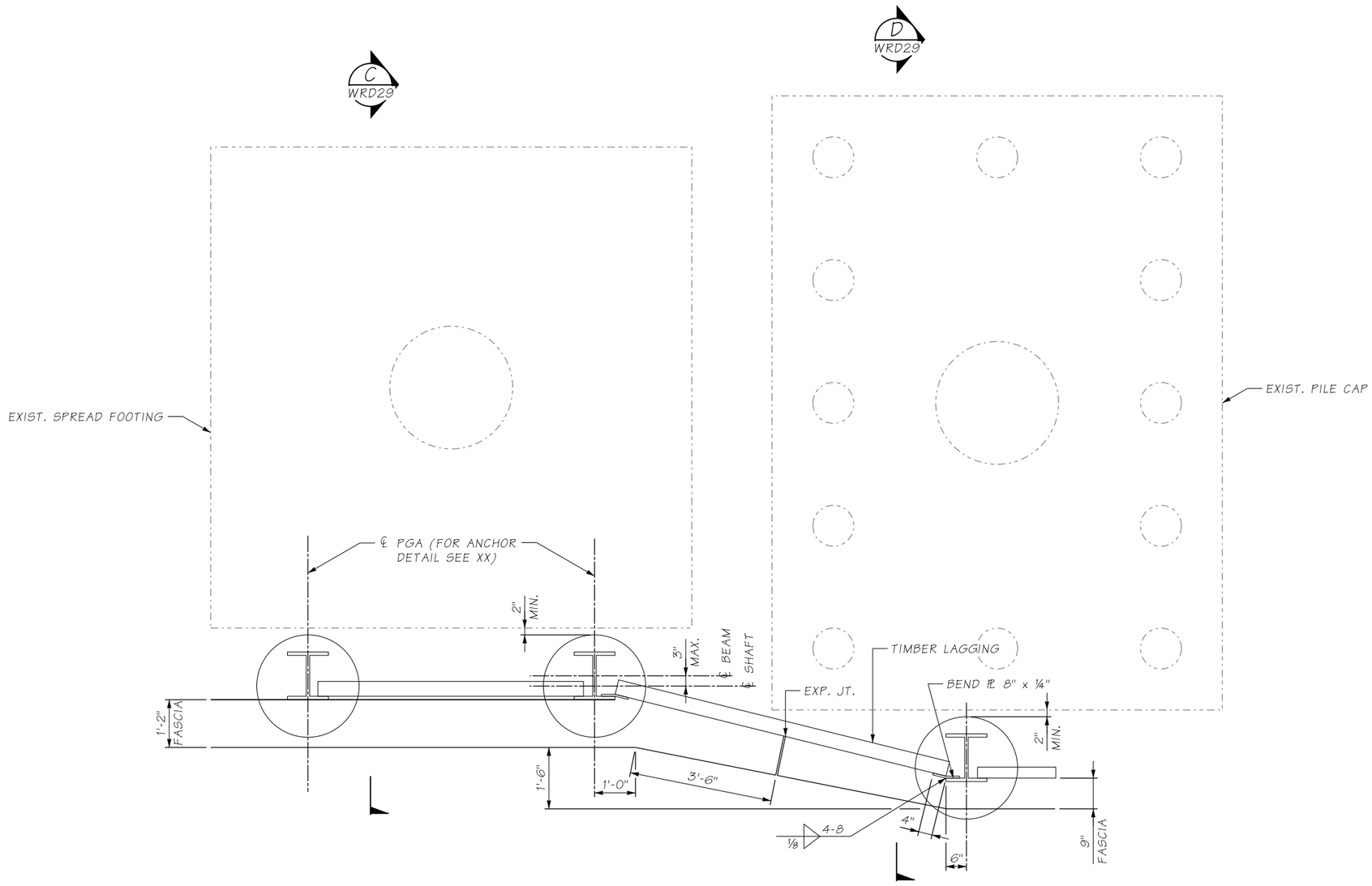
WALL 11 LAYOUT

PLAN REF NO WR13

SHEET OF SHEETS



WALL 11 FASCIA KINK DETAIL 1 / WR13

FILE NAME	XL5464_PS_WR_14.dgn							
TIME	11:19:03 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.	
DATE	12/30/2021							
PLOTTED BY	wsppw14ics02$				JOB NUMBER			
DESIGNED BY	Y. POLYAKOV	**PRELIMINARY**						
ENTERED BY	P. AROONLAP	NOT FOR CONSTRUCTION			CONTRACT NO.		LOCATION NO.	
CHECKED BY								
PROJ. ENGR.	E. PAO							
REGIONAL ADM.		REVISION	DATE	BY				

P.E. STAMP BOX — DATE

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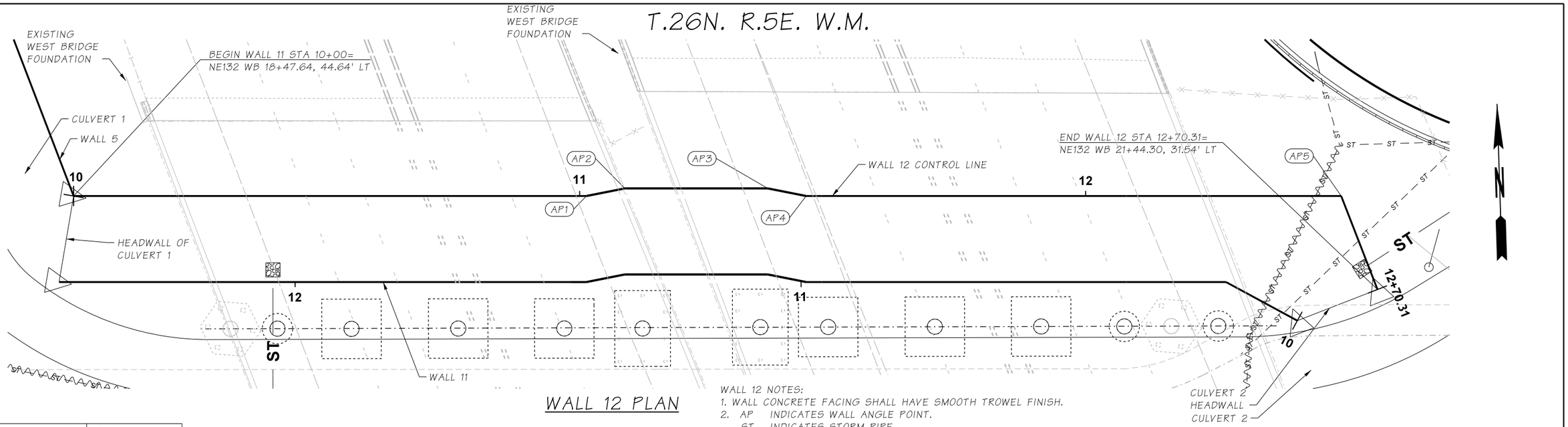
WALL 11 LAYOUT 2

PLAN REF NO WR14

SHEET OF SHEETS

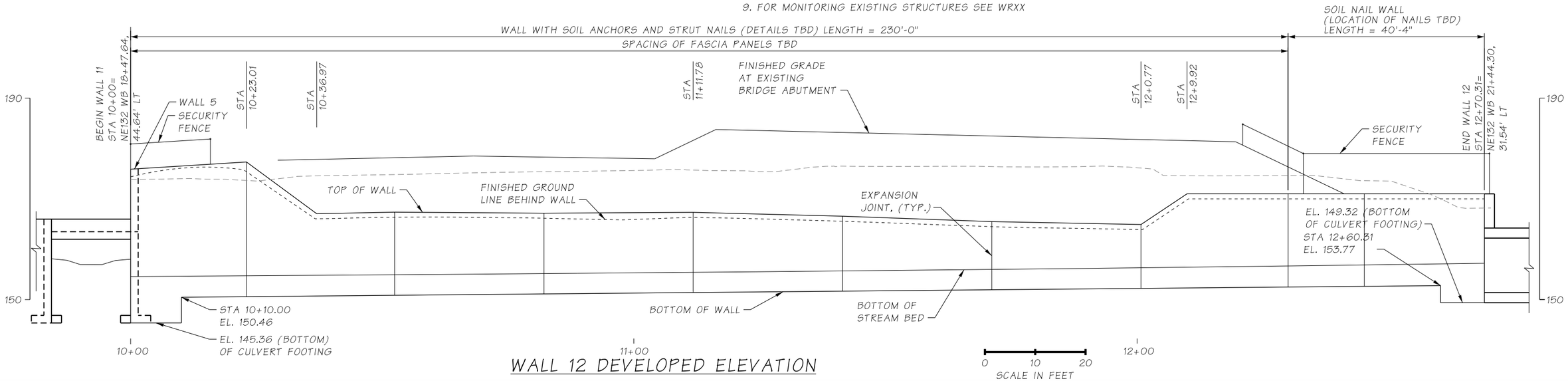


WALL 12 PLAN

WALL STATION	TOP OF WALL EL.
10+00.00	175.88
10+23.01	177.32
10+36.97	167.04
11+11.78	167.31
12+0.77	164.90
12+9.92	171.00
12+70.31	171.00

WALL 12 NOTES:
1. WALL CONCRETE FACING SHALL HAVE SMOOTH TROWEL FINISH.
2. AP INDICATES WALL ANGLE POINT.
   ST INDICATES STORM PIPE
   S INDICATES OPTICAL SEWER
3. INDICATES SECURITY FENCE PER WR??
4. ⊡ INDICATES SOIL NAIL LOCATION
5. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING BRIDGE FOUNDATIONS.
6. FOR WALL TO CULVERT TIE-INS DETAILS SEE SHEETS FCXX
7. VERTICAL DATUM: NAVD 88
8. FOR CONSTRUCTION SEQUENCE SEE WRXX
9. FOR MONITORING EXISTING STRUCTURES SEE WRXX

ANGLE POINT LOCATION TABLE		
	WALL STA	NE132 WB STA
AP1	X	X
AP2	X	X
AP3	X	X
AP4	X	X
AP5	X	X



WALL 12 DEVELOPED ELEVATION

FILE NAME	XL5464_PS_WR_15.dgn			REGION NO.	STATE	FED.AID PROJ.NO.
TIME	11:17:25 PM			10	WASH	
DATE	12/30/2021			JOB NUMBER		
PLOTTED BY	wsppw14ics02$	**PRELIMINARY**				
DESIGNED BY	Y. POLYAKOV	NOT FOR CONSTRUCTION		CONTRACT NO.		LOCATION NO.
ENTERED BY	D. DE LA CRUZ					
CHECKED BY						
PROJ. ENGR.	E. PAO					
REGIONAL ADM.		REVISION	DATE	BY		

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

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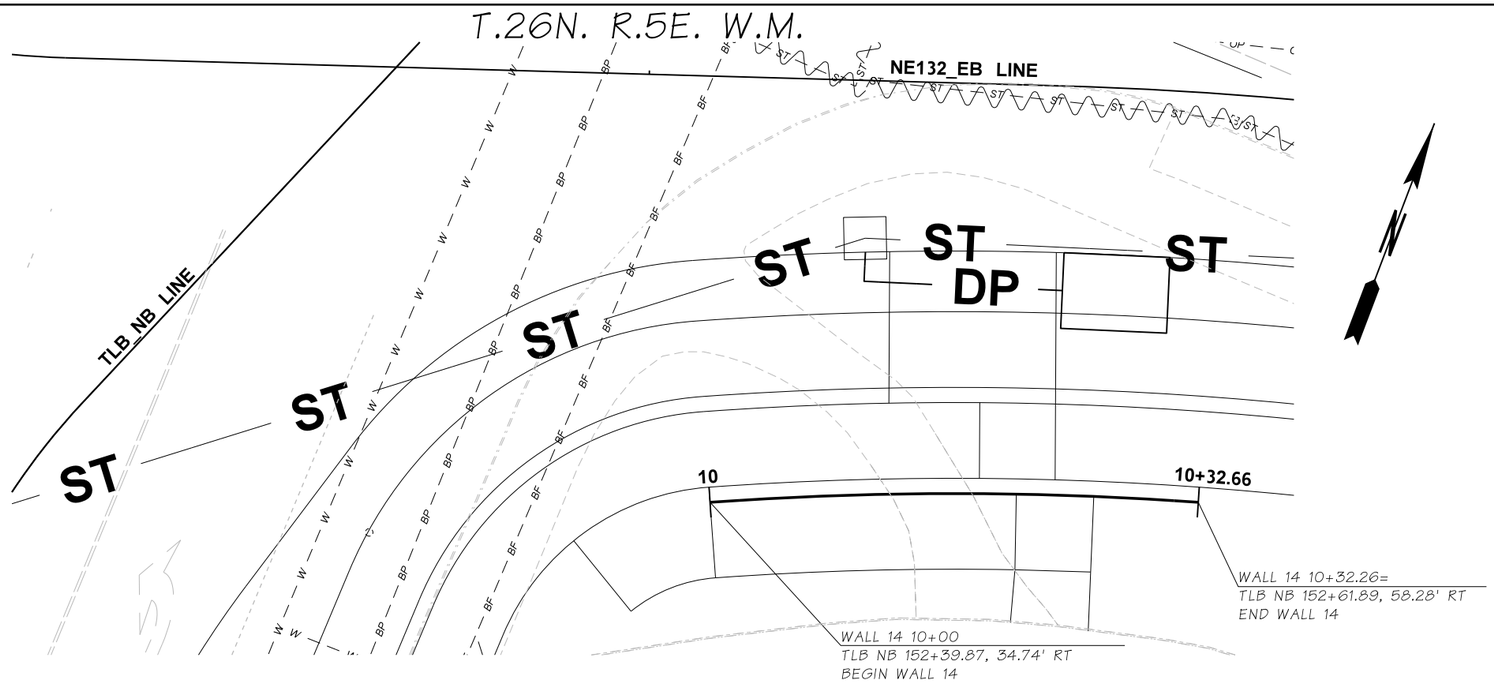
WALL 12 LAYOUT

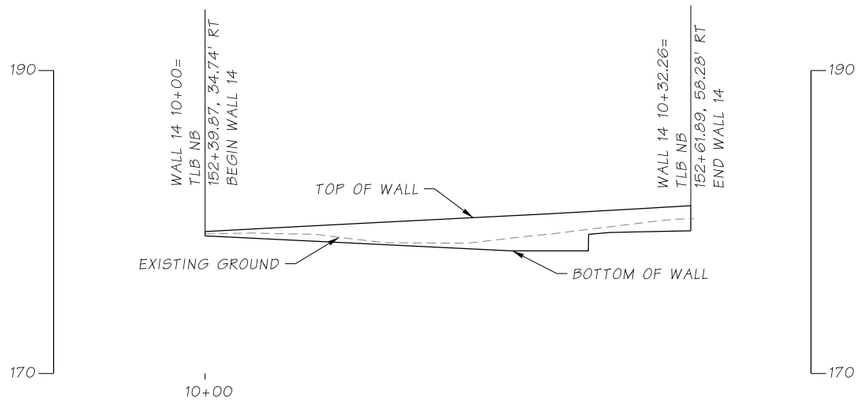
PLAN REF NO WR15

SHEET OF SHEETS



WALL 14 PLAN

ANGLE POINT LOCATION TABLE		
	WALL STA	TLB NB STA
AP1	X	X
AP2	X	X
AP3	X	X



WALL 14 DEVELOPED ELEVATION

0 5 10
SCALE IN FEET

FILE NAME	XL5464_PS_WR_16.dgn
TIME	11:17:51 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO.	STATE
10	WASH

JOB NUMBER

CONTRACT NO. | LOCATION NO.

FED.AID PROJ.NO.

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

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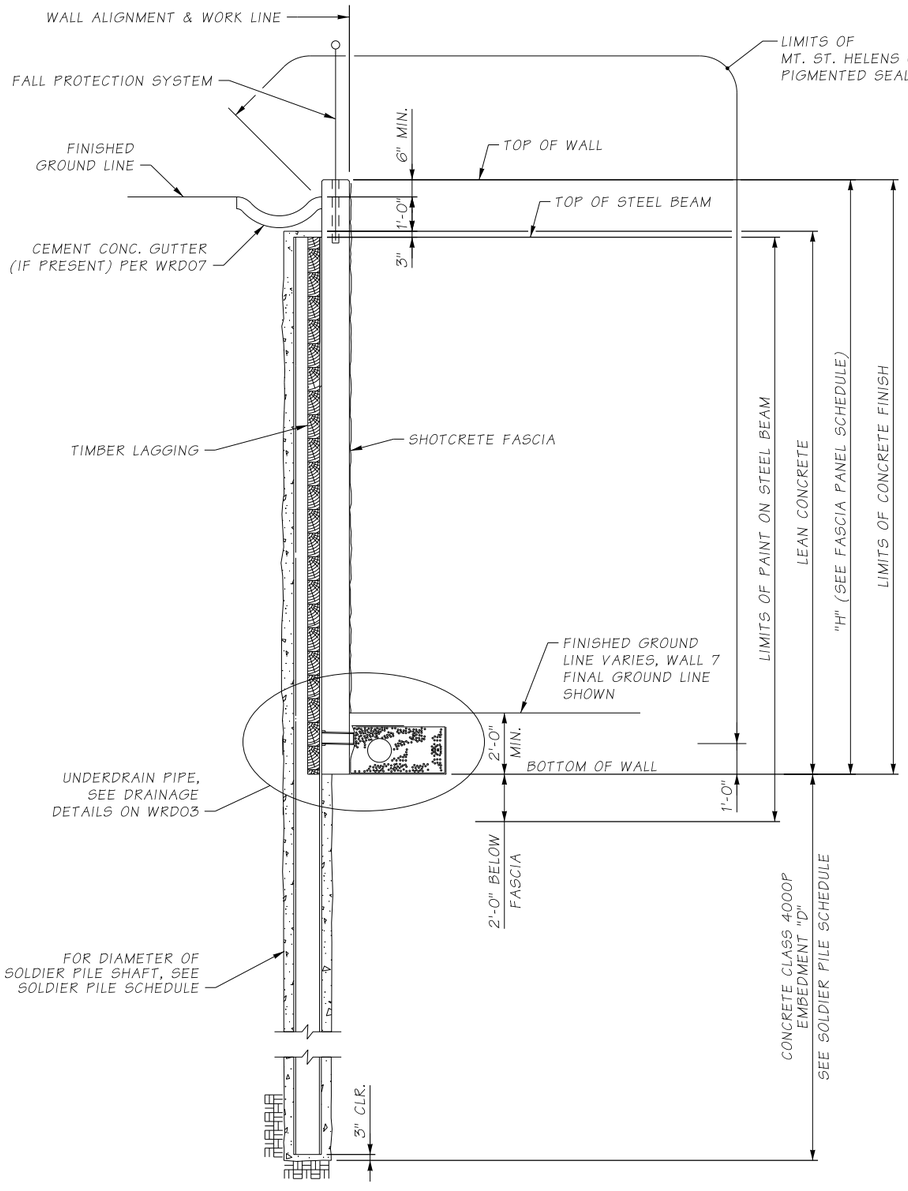
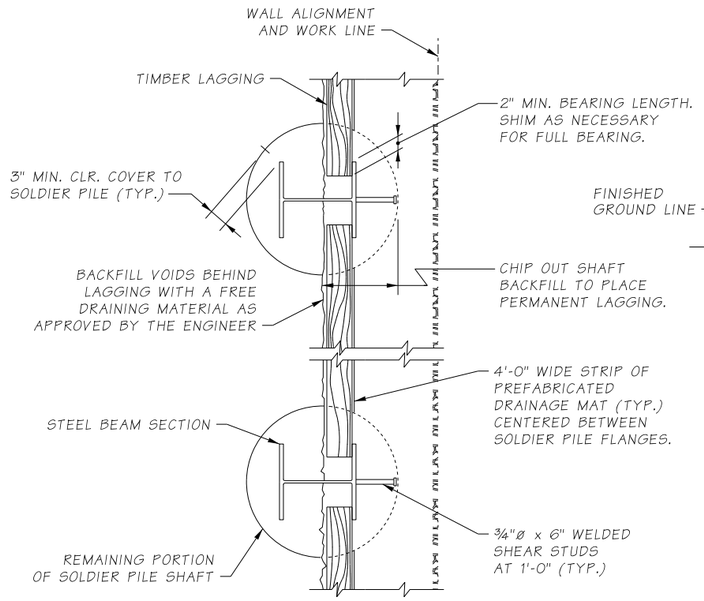
WALL 14 LAYOUT

PLAN REF NO WR16

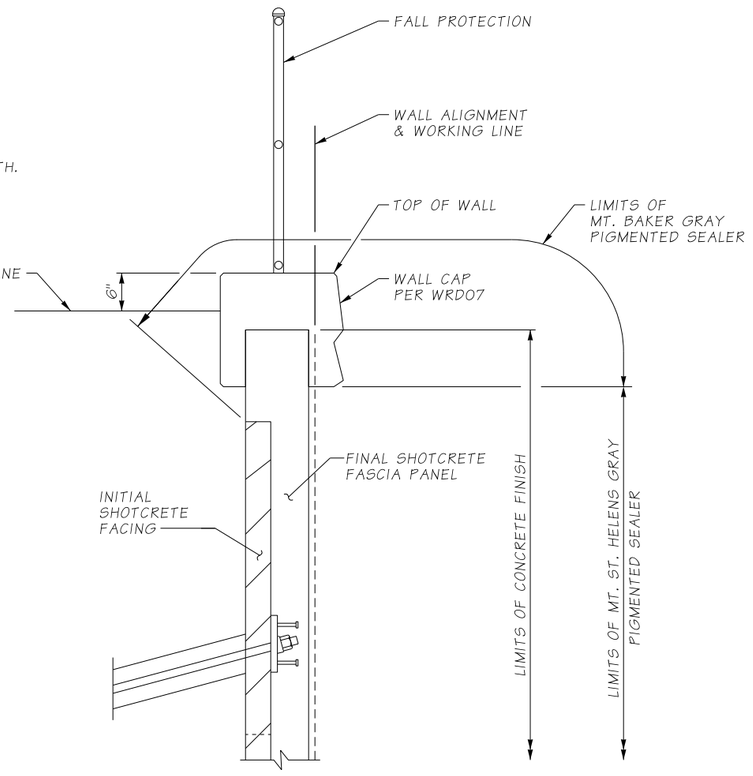
SHEET OF SHEETS



TYPICAL SECTION WITHOUT WALL CAP



PLAN
SOLDIER PILE WALL
WITHOUT P. G. A.



DETAIL WITH THE WALL CAP

NOTES:

1. FOR FASCIA CONCRETE FINISH AND TYPE OF WALL CAP SEE WALL DESCRIPTION TABLE ON WR00.
2. FOR TYPE OF FALL PROTECTION SYSTEM, CONCRETE GUTTER AND DRAINAGE SEE WALL LAYOUT SHEETS.

FILE NAME	XL5464_PS_WRD_01.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	
TIME	11:18:19 PM				10	WASH		
DATE	12/30/2021	**PRELIMINARY**			JOB NUMBER			
PLOTTED BY	wsppw14ics02$	NOT FOR CONSTRUCTION						
DESIGNED BY	A. JESSMORE				CONTRACT NO.		LOCATION NO.	
ENTERED BY	P. AROONLAP							
CHECKED BY								
PROJ. ENGR.	E. PAO							
REGIONAL ADM.		REVISION	DATE	BY				

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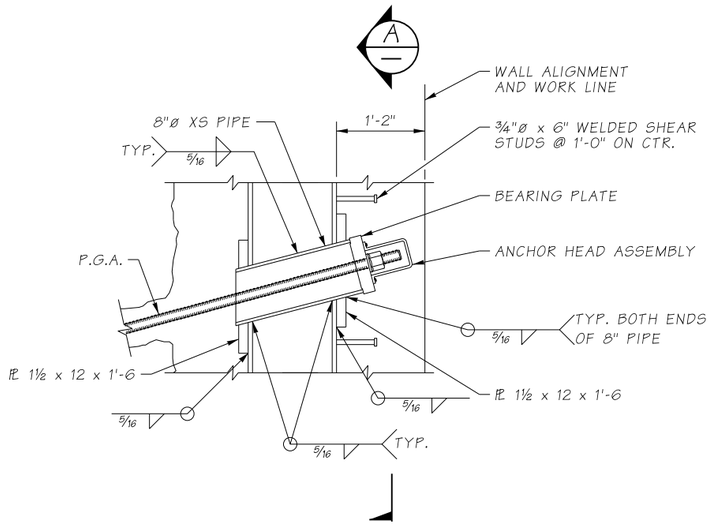
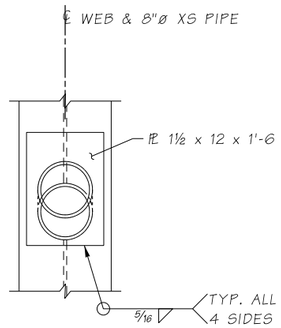
SOLDIER PILE WALL DETAILS
SHEET 1

PLAN REF NO WRD01

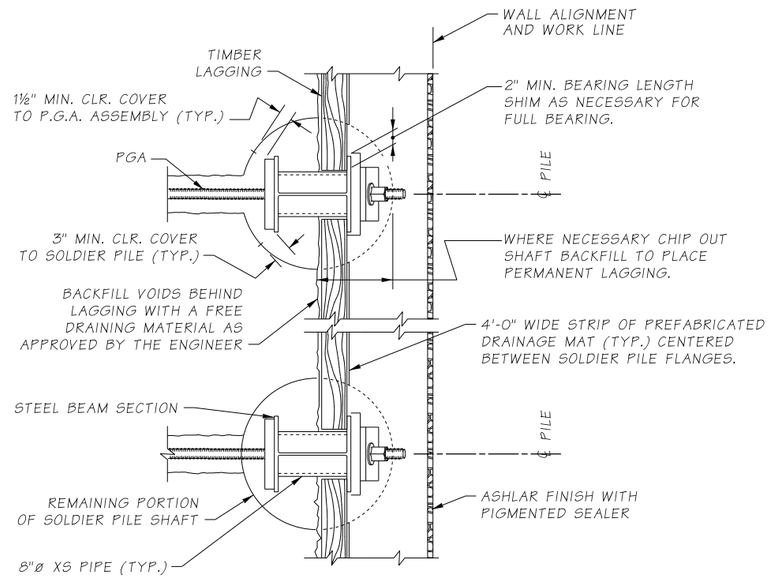
SHEET OF SHEETS



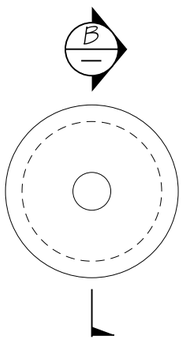
ELEVATION - SOLDIER PILE
WITH P.G.A. THRU WEB



VIEW A

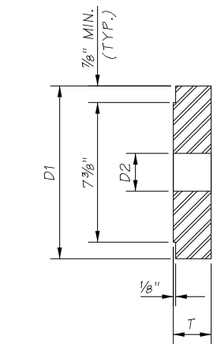


PLAN
SOLDIER PILE WALL
WITH P. G. A.



BEARING PLATE

BEARING PLATE SHALL BE SIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATION SECTION 6-17.3(5).



SECTION B

FILE NAME	XL5464_PS_WRD_02.dgn						
TIME	11:18:27 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	12/30/2021				10	WASH	
PLOTTED BY	wsppw14ics02$	**PRELIMINARY**			JOB NUMBER		
DESIGNED BY	A. JESSMORE	NOT FOR CONSTRUCTION					
ENTERED BY	P. AROONLAP				CONTRACT NO.		LOCATION NO.
CHECKED BY							
PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

P.E. STAMP BOX — DATE

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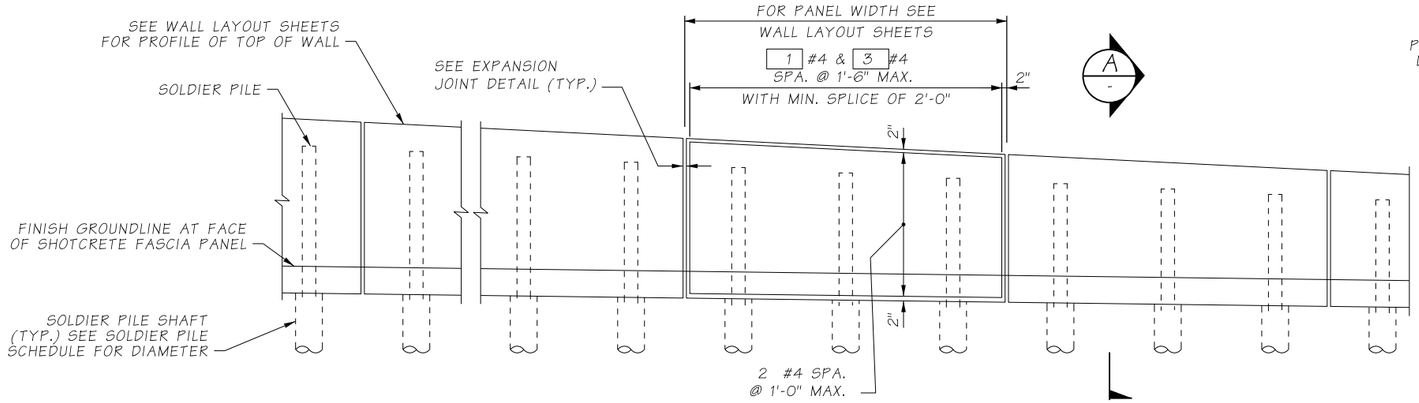
SOLDIER PILE WALL DETAILS
SHEET 2

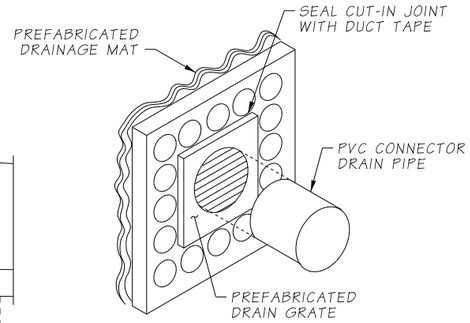
PLAN REF NO
WRD02

SHEET
OF
SHEETS

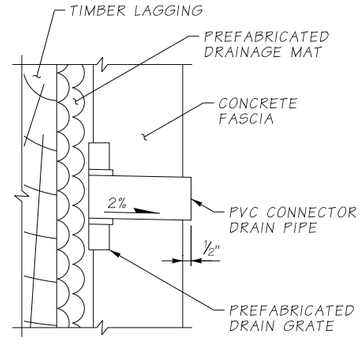


PARTIAL WALL ELEVATION

FOR INFORMATION NOT SHOWN OR NOTED. SEE SOLDIER PILE SCHEDULE



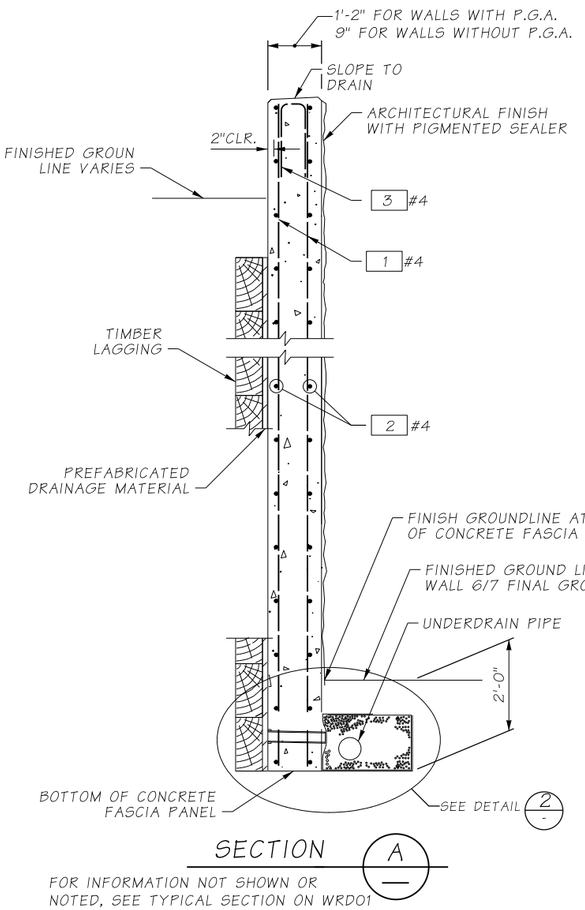
ISOMETRIC VIEW



SECTIONAL VIEW

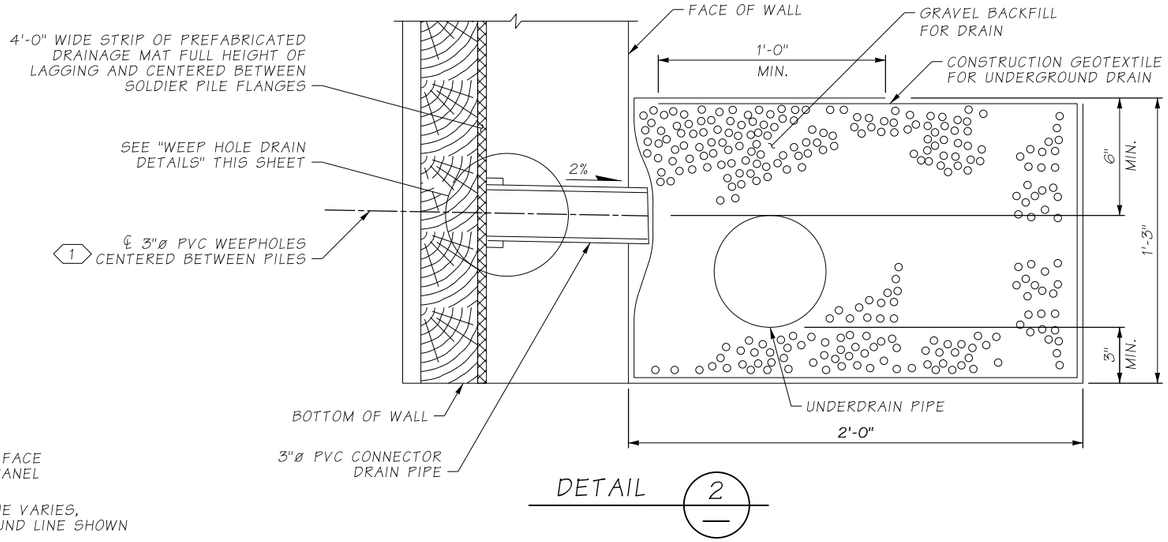
WEEP HOLE DRAIN DETAILS

DRAIN GRATE INSTALLATION SHALL NOT DISRUPT PREFABRICATED DRAINAGE MAT

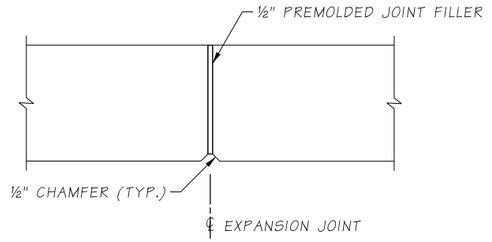


SECTION A

FOR INFORMATION NOT SHOWN OR NOTED, SEE TYPICAL SECTION ON WRD01

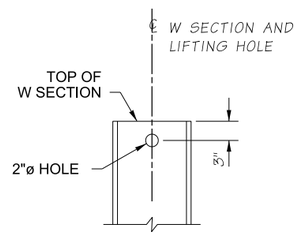


DETAIL 2



EXPANSION JOINT DETAIL

EXPANSION JOINTS SHALL BE LOCATED AS SHOWN ON WALL LAYOUT SHEETS



SOLDIER PILE LIFTING HOLE

LIFTING HOLE TO BE DRILLED IN THE SHOP PRIOR TO PAINTING THE PILE.

NOTES:

1. WEEP HOLES LOCATED AT AN EXPANSION JOINT MAY BE ADJUSTED 6" TO 1'-0" AWAY FROM THE EXPANSION JOINT, BUT REMAIN WITHIN THE MIDDLE HALF OF THE PREFABRICATED DRAINAGE MAT.

FILE NAME	XL5464_PS_WRD_03.dgn						
TIME	11:17:32 PM						
DATE	12/30/2021						
PLOTTED BY	wsppw14ics02$	**PRELIMINARY**			REGION NO. 10 / STATE WASH	FED.AID PROJ.NO.	
DESIGNED BY	A. JESSMORE				JOB NUMBER		
ENTERED BY	P. AROONLAP	NOT FOR CONSTRUCTION			CONTRACT NO.	LOCATION NO.	
CHECKED BY							
PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

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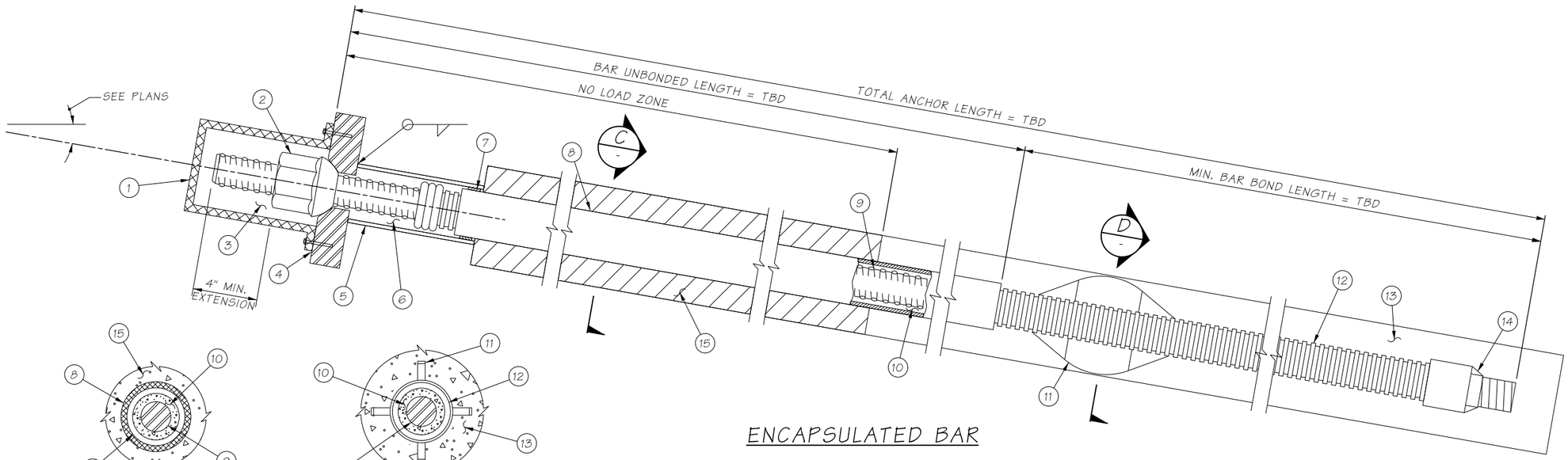
SOLDIER PILE WALL DETAILS
SHEET 3

PLAN REF NO WRD03

SHEET OF SHEETS



ENCAPSULATED BAR

1. ANCHORAGE COVER
2. NUT
3. ANTICORROSION GREASE*
4. BEARING PLATE
5. TRUMPET
6. ANTICORROSION GREASE
7. SEAL
8. SMOOTH PVC BOND BREAKER
9. BAR
10. ENCAPSULATION GROUT
11. CENTRALIZERS
12. CORRUGATED PVC
13. ANCHOR GROUT
14. END CAP
15. NONSTRUCTURAL FILLER

* USE GROUT IF ANCHORAGE COVER IS EXPOSED

SECTION C

SECTION D

NOTE:
THE DOUBLE CORROSION PROTECTION SYSTEM AT THE ANCHOR HEAD SHALL BE DETAILED TO ALLOW A MINIMUM OF 1½ 2^ VARIATION IN THE SLOPE OF THE SOIL ANCHOR FOR PLACEMENT TOLERANCE.

ALL ANCHORAGE COVERS SHALL BE BOLTED TO THE BEARING PLATES.

FILE NAME	XL5464_PS_WRD_04.dgn
TIME	11:18:30 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	A. JESSMORE
ENTERED BY	P. AROONLAP
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO.	STATE
10	WASH

JOB NUMBER

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.

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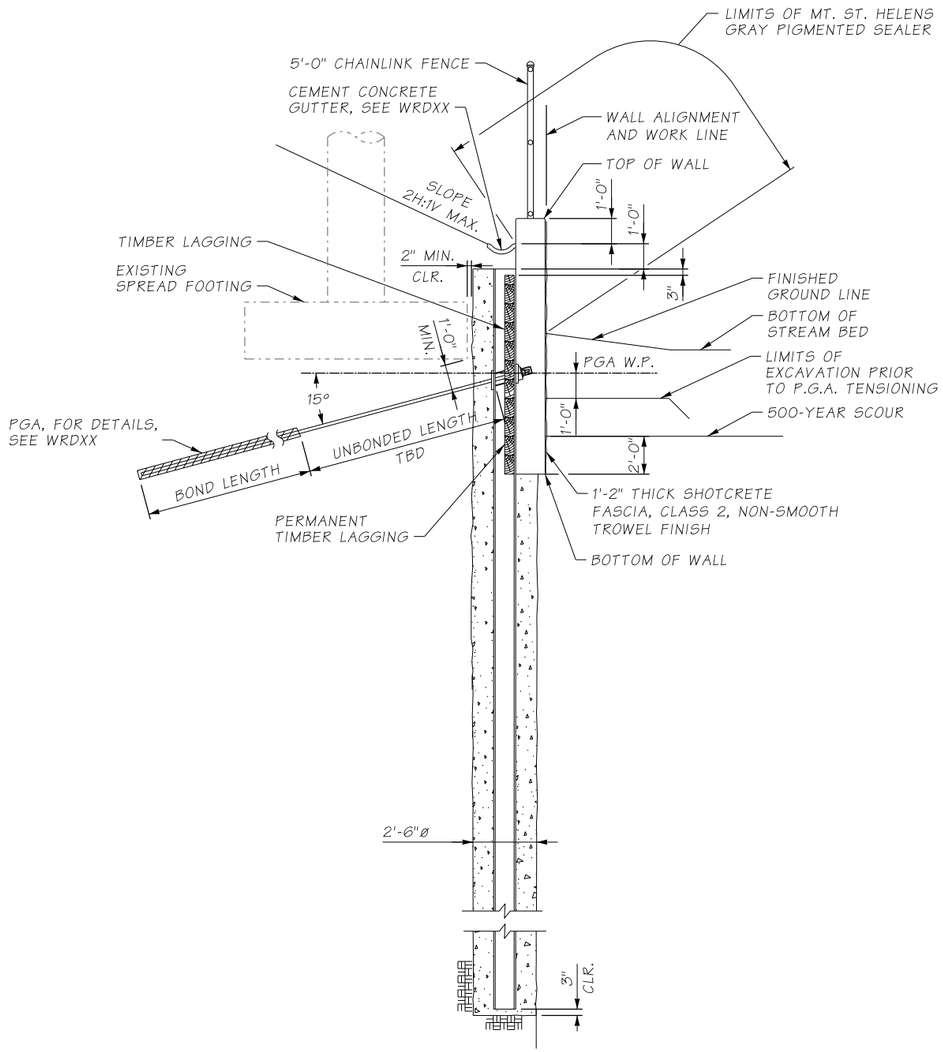
SOLDIER PILE WALL DETAILS
SHEET 4

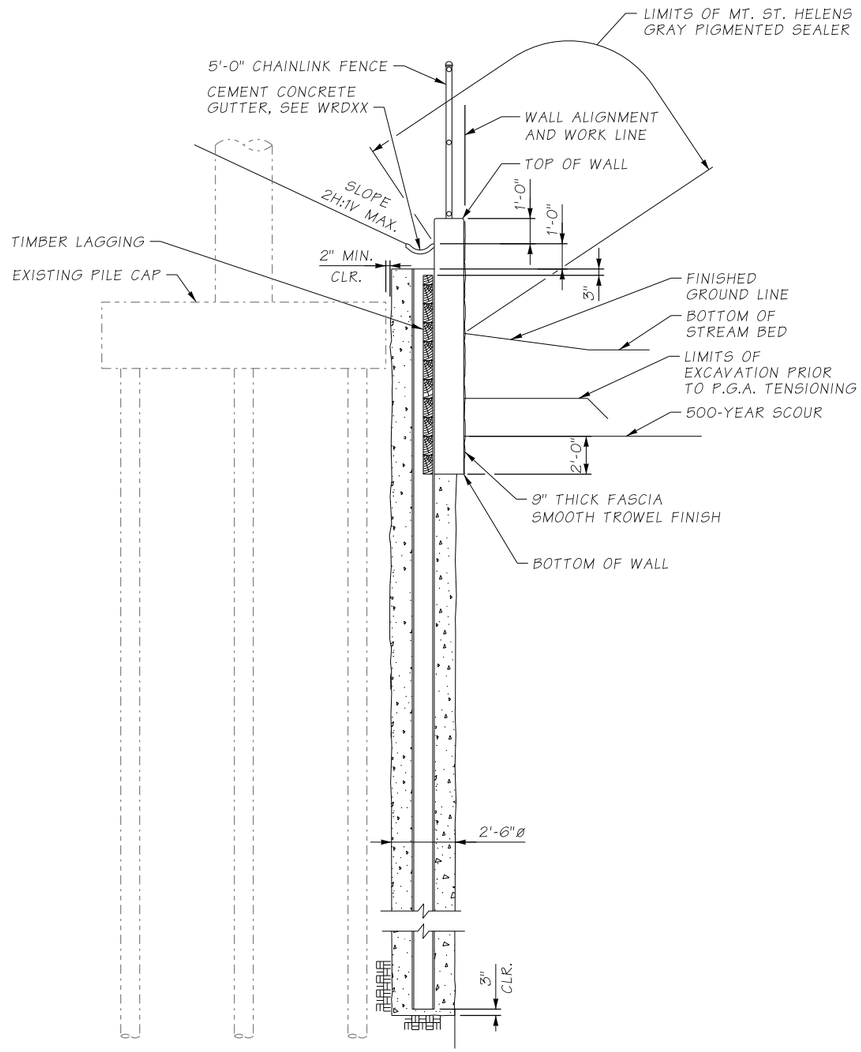
PLAN REF NO
WRD04

SHEET
OF
SHEETS



WALL 11 AT EXISTING SPREAD FOOTING

SECTION C WR13



WALL 11 AT EXISTING PILE CAP

SECTION D WR13

NOTES:

1. FOR TYPICAL SOLDIER PILE WALL DETAILS, SEE WRD01, WRD02 AND WRD03.

FILE NAME	XL5464_PS_WRD_05.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.	PLAN REF NO WRD05
TIME	11:18:25 PM				JOB NUMBER			
DATE	12/30/2021							SHEET
PLOTTED BY	wsppw14ics02$	**PRELIMINARY**						OF
DESIGNED BY	Y. POLYAKOV	NOT FOR CONSTRUCTION						SHEETS
ENTERED BY	P. AROONLAP							
CHECKED BY					CONTRACT NO.	LOCATION NO.		
PROJ. ENGR.	E. PAO							
REGIONAL ADM.		REVISION	DATE	BY				

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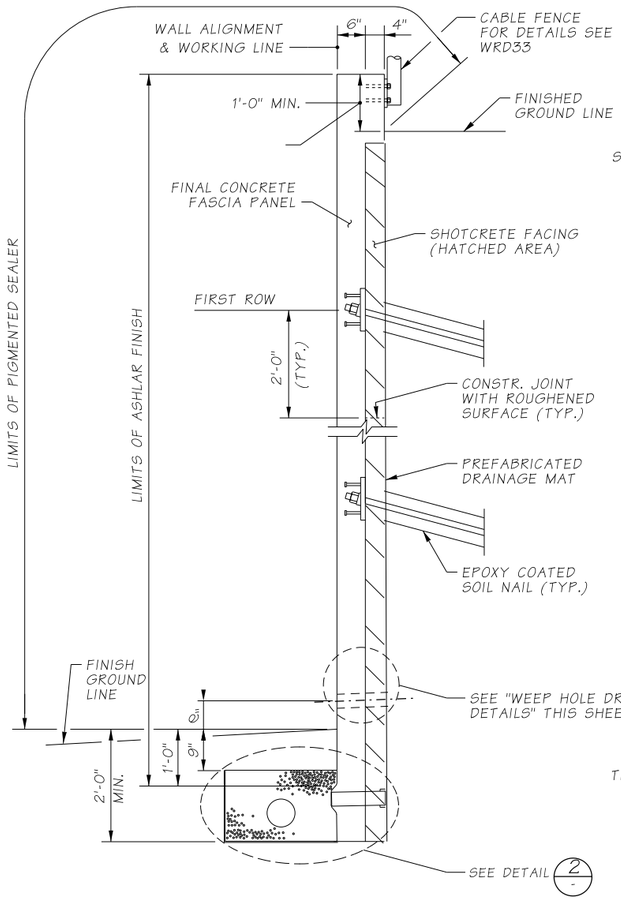
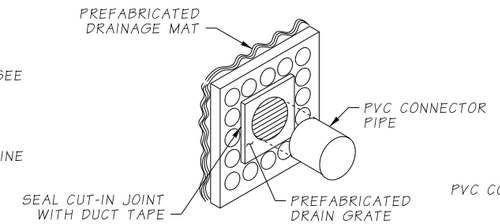
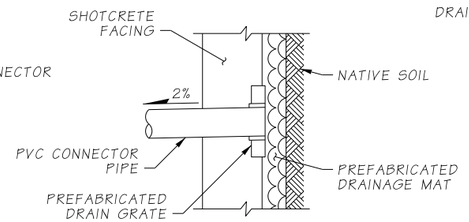
SOLDIER PILE WALL DETAILS
SHEET 5



TYPICAL SECTION
EPOXY COATED SOIL NAIL WALL



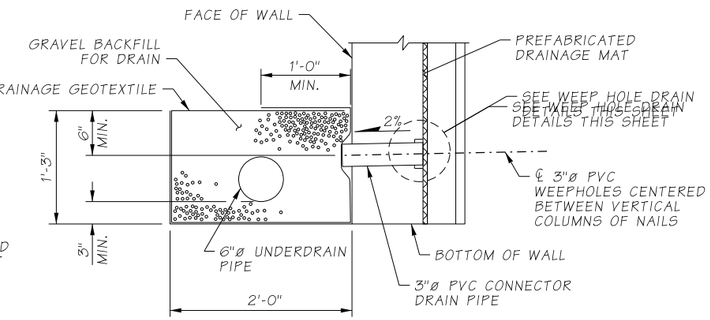
ISOMETRIC VIEW



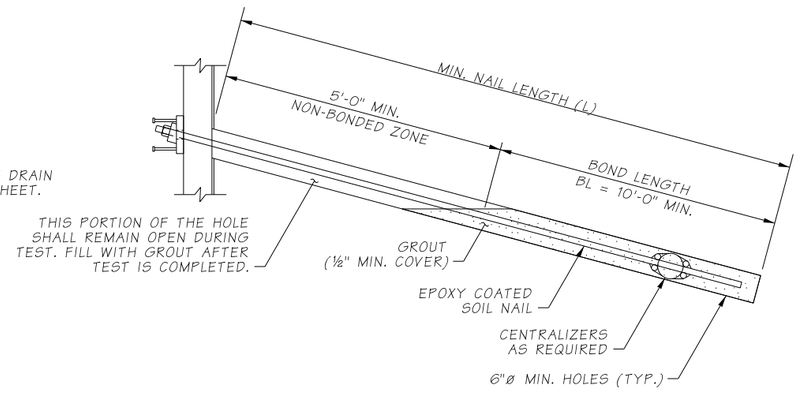
SECTIONAL VIEW

WEEP HOLE DRAIN DETAILS

DRAIN GRATE INSTALLATION SHALL NOT DISRUPT PREFABRICATED DRAINAGE MAT



DETAIL 2
TYPICAL FABRIC DRAIN CONNECTION TO UNDERDRAIN PIPE



EPOXY COATED TEST NAIL DETAIL

TL = TEST LOAD = (BOND LENGTH) x (DESIGN LOAD TRANSFER (DLT))

FILE NAME	XL5464_PS_WRD_06.dgn
TIME	11:19:04 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	A. JESSMORE
ENTERED BY	P. AROONLAP
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

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REVISION	DATE	BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.
JOB NUMBER
CONTRACT NO. | LOCATION NO.

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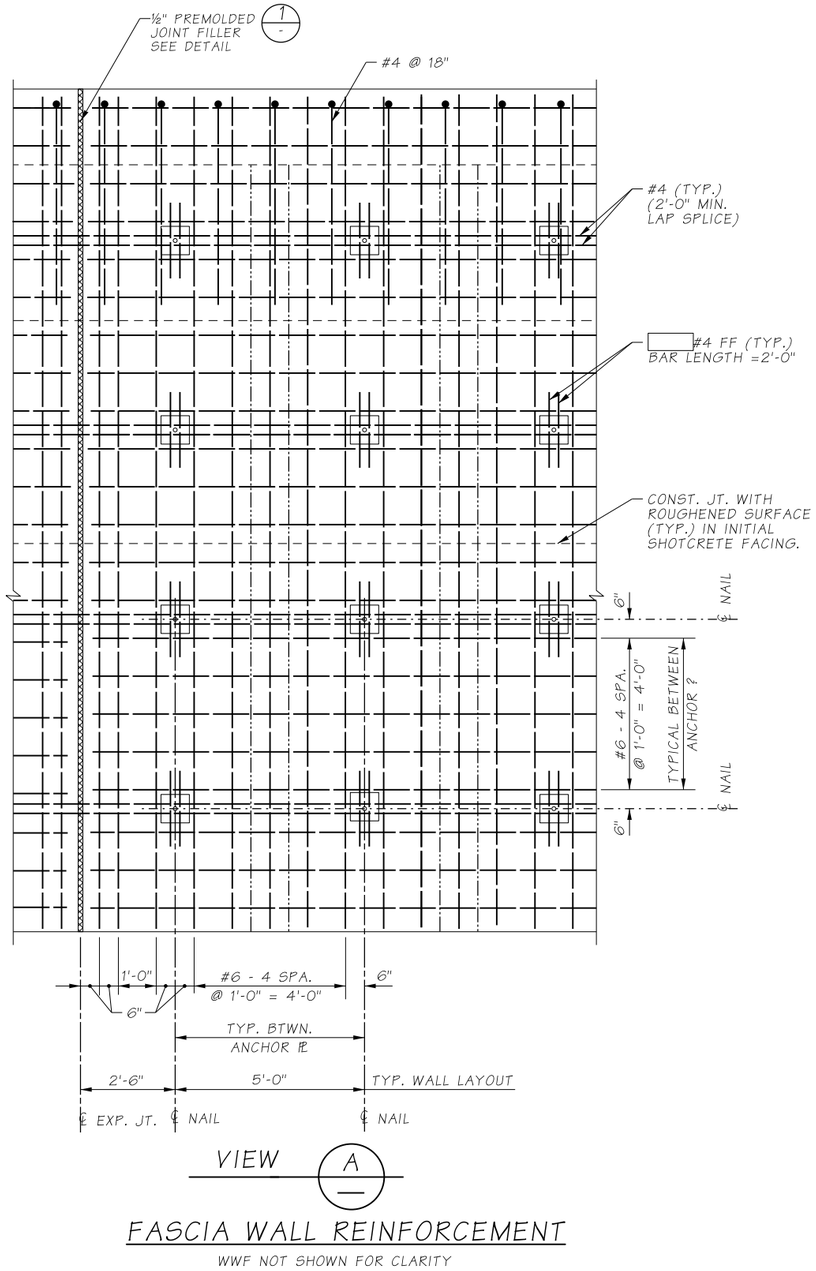
SOIL NAIL WALL DETAILS
SHEET 1

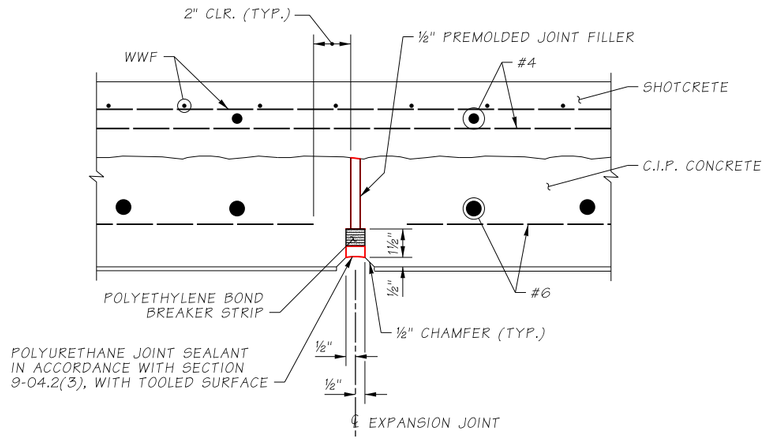
PLAN REF NO WRD06
SHEET
OF
SHEETS



VIEW A

FASCIA WALL REINFORCEMENT

WWF NOT SHOWN FOR CLARITY



DETAIL 1

FILE NAME	XL5464_PS_WRD_07.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	
TIME	11:18:39 PM				10	WASH		
DATE	12/30/2021				JOB NUMBER			
PLOTTED BY	wsppw14ics02$	**PRELIMINARY**						
DESIGNED BY	A. JESSMORE	NOT FOR CONSTRUCTION			CONTRACT NO.		LOCATION NO.	
ENTERED BY	P. AROONLAP							
CHECKED BY								
PROJ. ENGR.	E. PAO							
REGIONAL ADM.		REVISION	DATE	BY				

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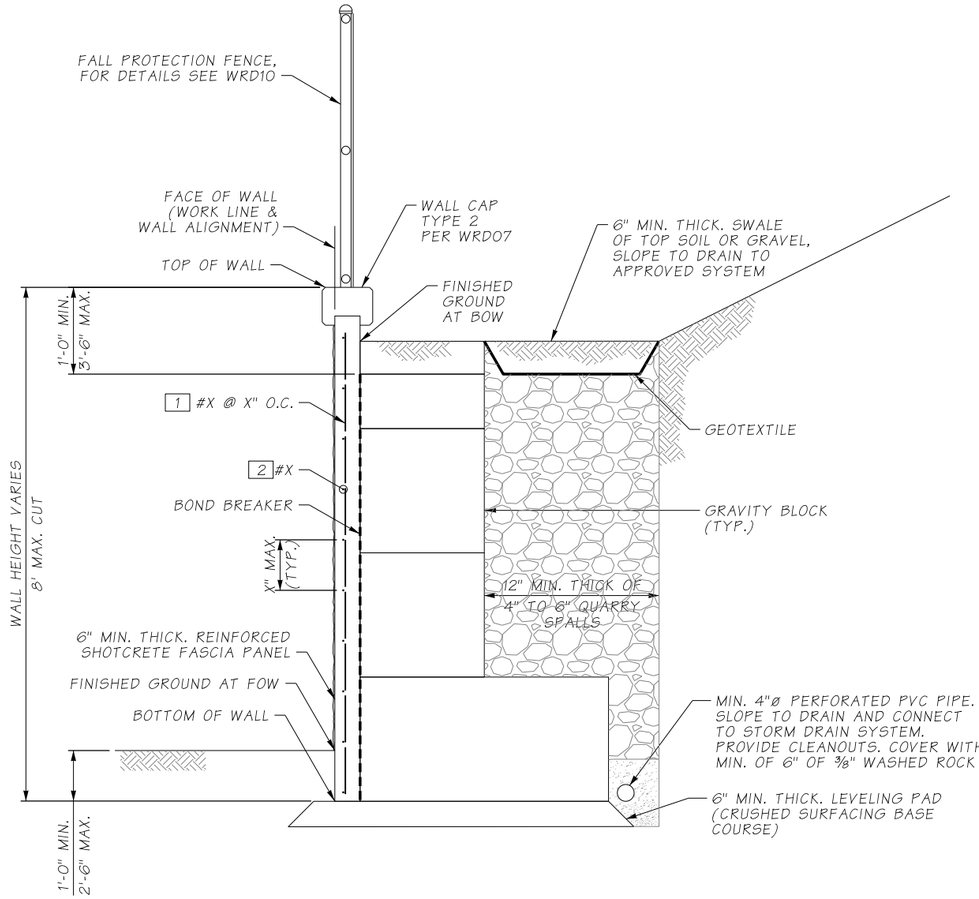
SOIL NAIL WALL DETAILS
SHEET 2

PLAN REF NO
WRD07

SHEET
OF
SHEETS



SECTION A
WRO2

NOTE:

GRAVITY BLOCK WALL TO BE CONSTRUCTED IN ACCORDANCE WITH WSDOT STANDARD SPEC. 8-24 SUPPLEMENTED WITH GEOTECHNICAL RECOMMENDATIONS.

FILE NAME	XL5464_PS_WRD_08.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	
TIME	11:20:37 PM				10	WASH		
DATE	12/30/2021				JOB NUMBER			
PLOTTED BY	wsppw14ics02$	**PRELIMINARY**						
DESIGNED BY	A. JESSMORE	NOT FOR CONSTRUCTION			CONTRACT NO.		LOCATION NO.	
ENTERED BY	P. AROONLAP							
CHECKED BY								
PROJ. ENGR.	E. PAO							
REGIONAL ADM.		REVISION	DATE	BY				

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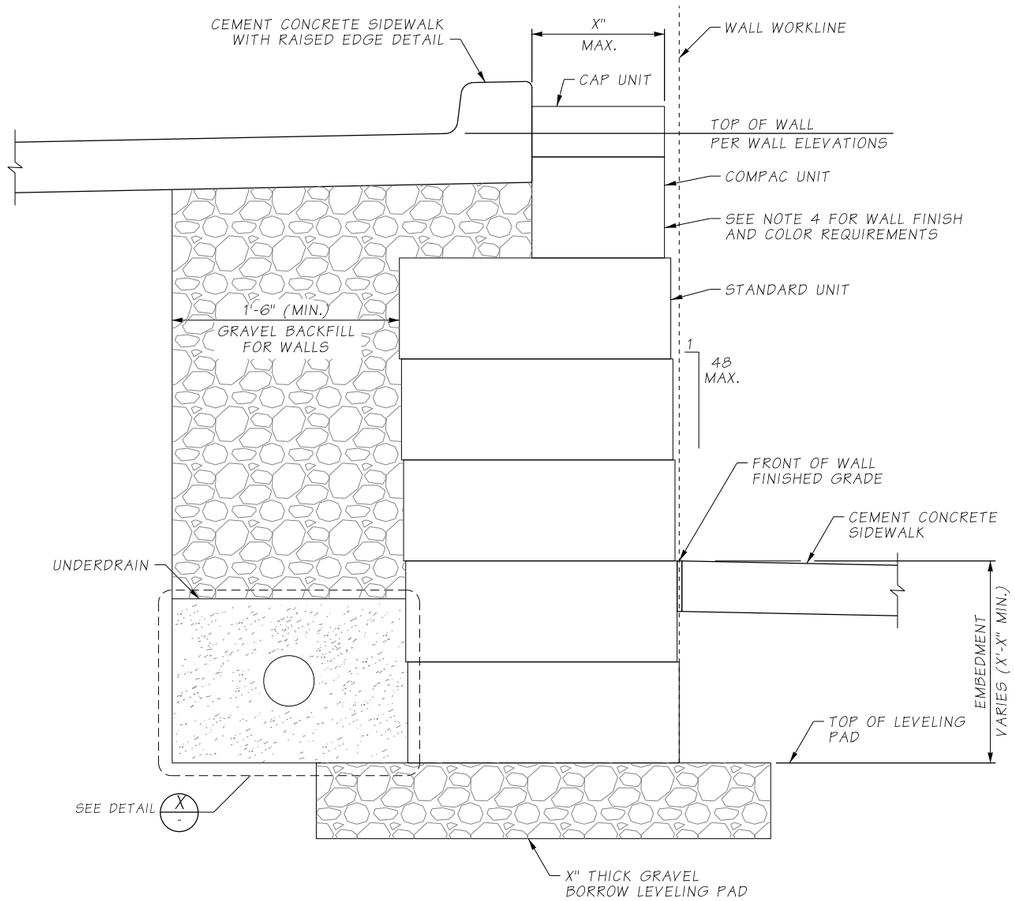
BLOCK WALL DETAILS

PLAN REF NO
WRD08

SHEET
OF
SHEETS



TYPICAL SECTION - WALL 14

(LOOKING AHEAD ON WALL STATION)

NOTES:

1. BOTTOM OF WALL SYSTEM CORRESPONDS TO BOTTOM OF SEW SYSTEMS THAT INCLUDE FOOTINGS OR LEVELING PADS.
2. WALL TO BE DESIGNED BY MANUFACTURER.
3. WALL TO BE CONSTRUCTED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 6-13 SUPPLEMENTED WITH GEOTECHNICAL RECOMMENDATIONS.
4. WALL UNITS SHALL HAVE A FLAT SPLIT FACE FINISH AND BE TAN IN COLOR.

FILE NAME	XL5464_PS_WRD_09.dgn
TIME	11:20:45 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	B. BINNEY
ENTERED BY	P. AROONLAP
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO.	STATE
10	WASH

JOB NUMBER

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.

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KEYSTONE WALL DETAILS

PLAN REF NO
WRD09

SHEET
OF
SHEETS

THIS SHEET IS INTENTIONALLY EMPTY
FALL PROTECTION SYSTEM DETAILS TBD

FILE NAME	XL5464_PS_WRD_10.dgn
TIME	11:18:12 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	B. BINNEY
ENTERED BY	P. AROONLAP
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO.	STATE
10	WASH

JOB NUMBER

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.

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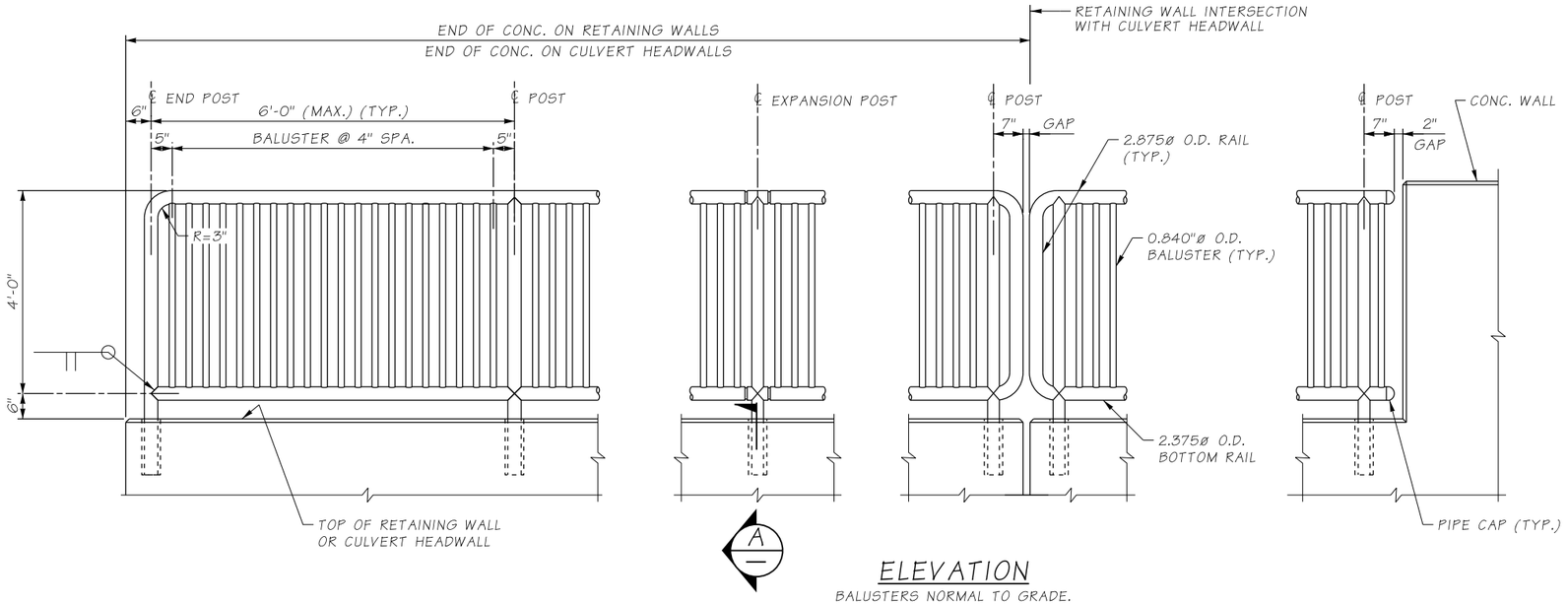
FALL PROTECTION AND PEDESTRIAN FENCE DETAILS

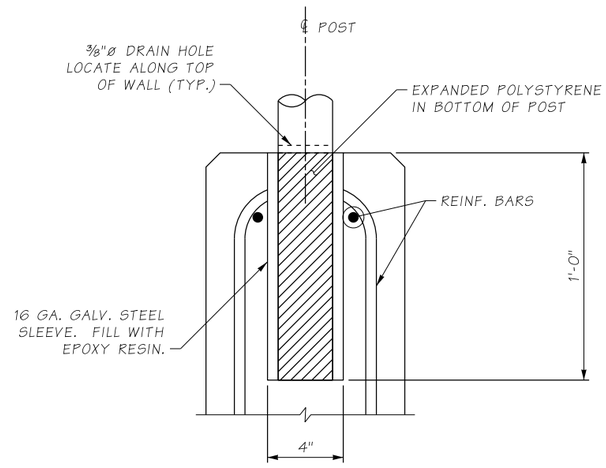
PLAN REF NO
WRD10

SHEET
OF
SHEETS



ELEVATION

BALUSTERS NORMAL TO GRADE.
TOP & BOTTOM RAILS PARALLEL TO GRADE.



SECTION

NOTES:

1. PIPE RAILING AND PIPE RAILING SPLICES SHALL BE BENT TO THE HORIZONTAL CURVE WHERE THE RADIUS OF CURVATURE IS LESS THAN 200'. THESE ITEMS MAY BE HEATED TO NOT MORE THAN 400°F FOR A PERIOD NOT TO EXCEED 30 MINUTES TO FACILITATE FORMING OR BENDING TO HORIZONTAL CURVATURE.
2. SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED AS A TYPE 2 WORKING DRAWING SHOWING COMPLETE DIMENSIONS AND DETAILS OF FABRICATION AND INCLUDING AN ERECTION DIAGRAM. MATERIAL SPECIFICATIONS SHALL BE PROVIDED IN THE SHOP DRAWINGS FOR ALL COMPONENTS.
3. CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH. FLAME CUTTING WILL NOT BE PERMITTED.
4. WELDING OF ALUMINUM SHALL CONFORM TO STD. SPEC. SECTION 9-28.14(3).
5. ALL ALUMINUM PARTS SHALL BE GIVEN A *CLEAR ANODIC COATING OF AT LEAST 0.0006" THICK AND SEALED TO MEET THE REQUIREMENTS OF ASTM B 580 WITH A UNIFORM FINISH.
6. PIPE RAILING, PIPE BALUSTERS AND PIPE RAILING SPLICES SHALL BE ADEQUATELY WRAPPED TO INSURE SURFACE PROTECTION DURING HANDLING AND TRANSPORTATION TO THE JOB SITE.
7. RAILING SHALL BE ALUMINUM PIPE RAIL OR APPROVED EQUIVALENT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
8. ALLOW EXPANSION AT APPROXIMATELY EVERY FOURTH POST AND AT EXPANSION JOINTS.
9. RAILS, POST, BALUSTER, AND FORMED ELBOWS SHALL BE ASTM B-241 OR B-429 ALLOY, 6063-T6 SCHEDULE 40 (STD. PIPE). BRACKETS, ENDCAPS AND OTHER FITTINGS SHALL BE ASTM 6063-T5. SPLICES AND REINFORCING SLEEVES SHALL BE DRAWN ALUMINUM TUBING 6063-T832.

FILE NAME	XL5464_PS_WRD_11.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	11:17:46 PM				10	WASH	
DATE	12/30/2021				JOB NUMBER		
PLOTTED BY	wsppw14ics02$	**PRELIMINARY**					
DESIGNED BY	B. BINNEY	NOT FOR CONSTRUCTION			CONTRACT NO.		LOCATION NO.
ENTERED BY	P. AROONLAP						
CHECKED BY							
PROJ. ENGR.	E. PAO						
REGIONAL ADM.		REVISION	DATE	BY			

P.E. STAMP BOX — DATE

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Washington State Department of Transportation
wsp
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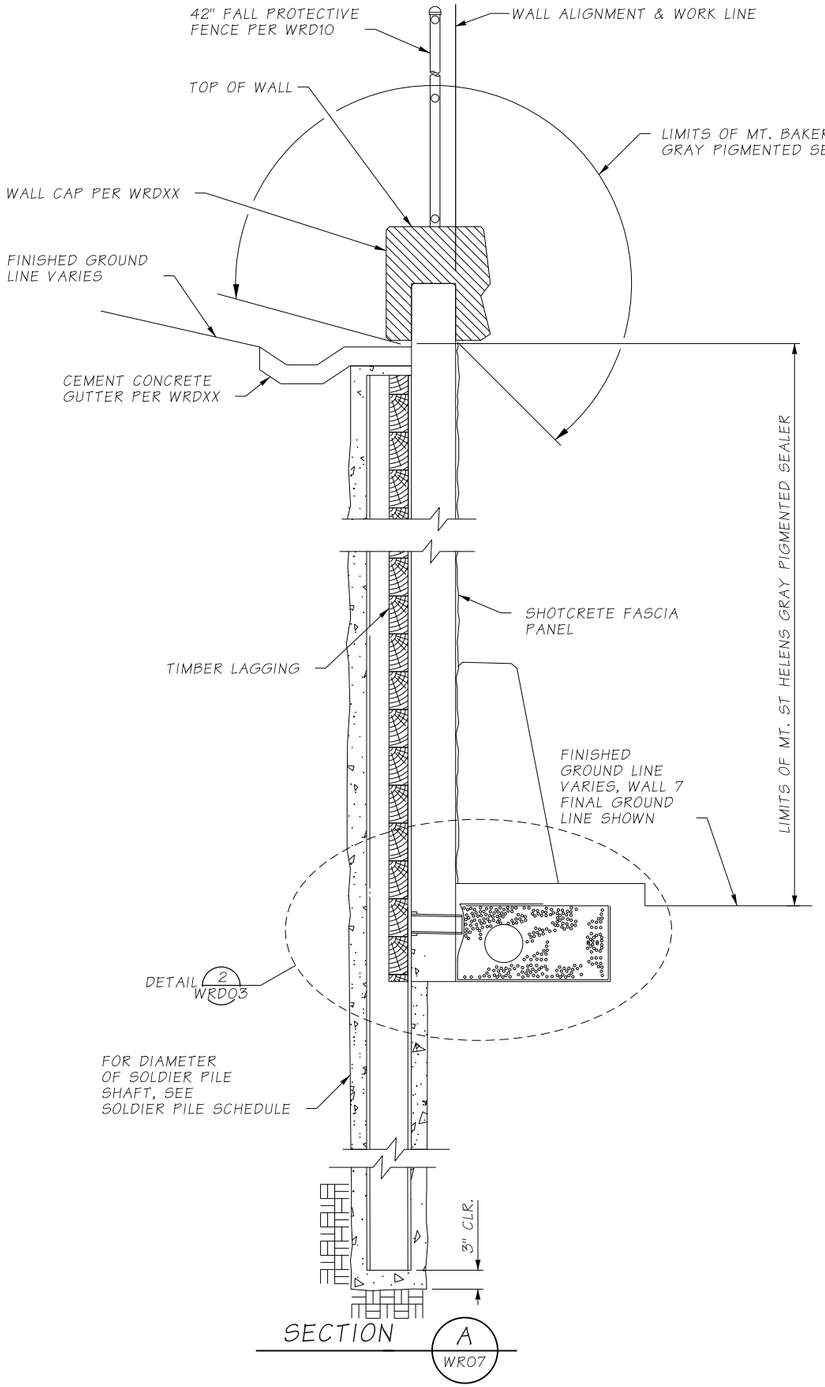
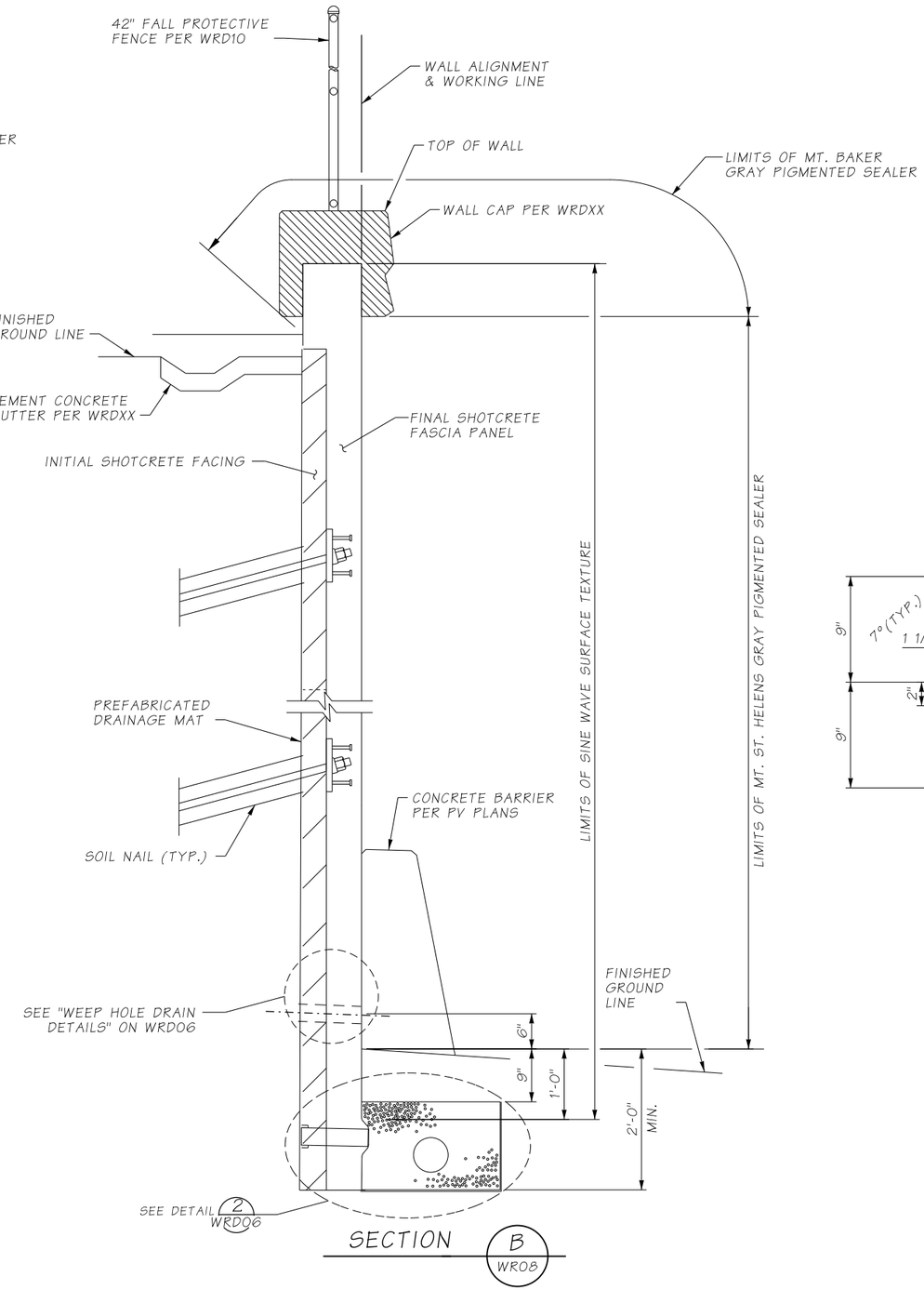
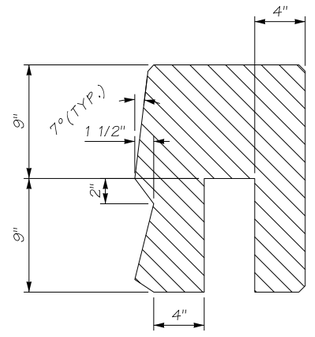
PEDESTRAIN SAFETY RAIL DETAILS

PLAN REF NO
WRD11

SHEET
OF
SHEETS







DETAIL

NOTES:

1. FOR SOIL NAIL WALL DETAILS, SEE WRD06 AND WRD07.
2. FOR SOLDIER PILE WALL DETAILS. SEE WRD01 AND WRD03.

FILE NAME	XL5464_PS_WRD_12.dgn
TIME	11:18:50 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

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REGION NO.	STATE
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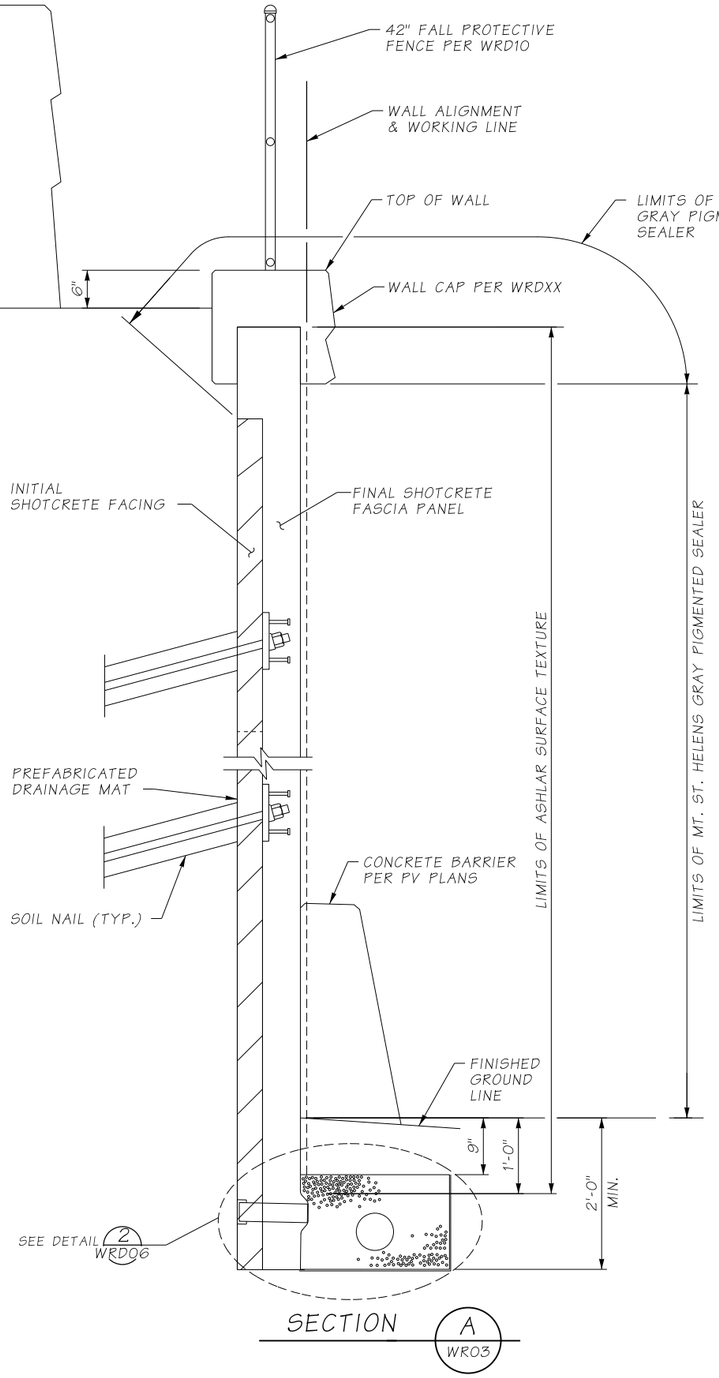
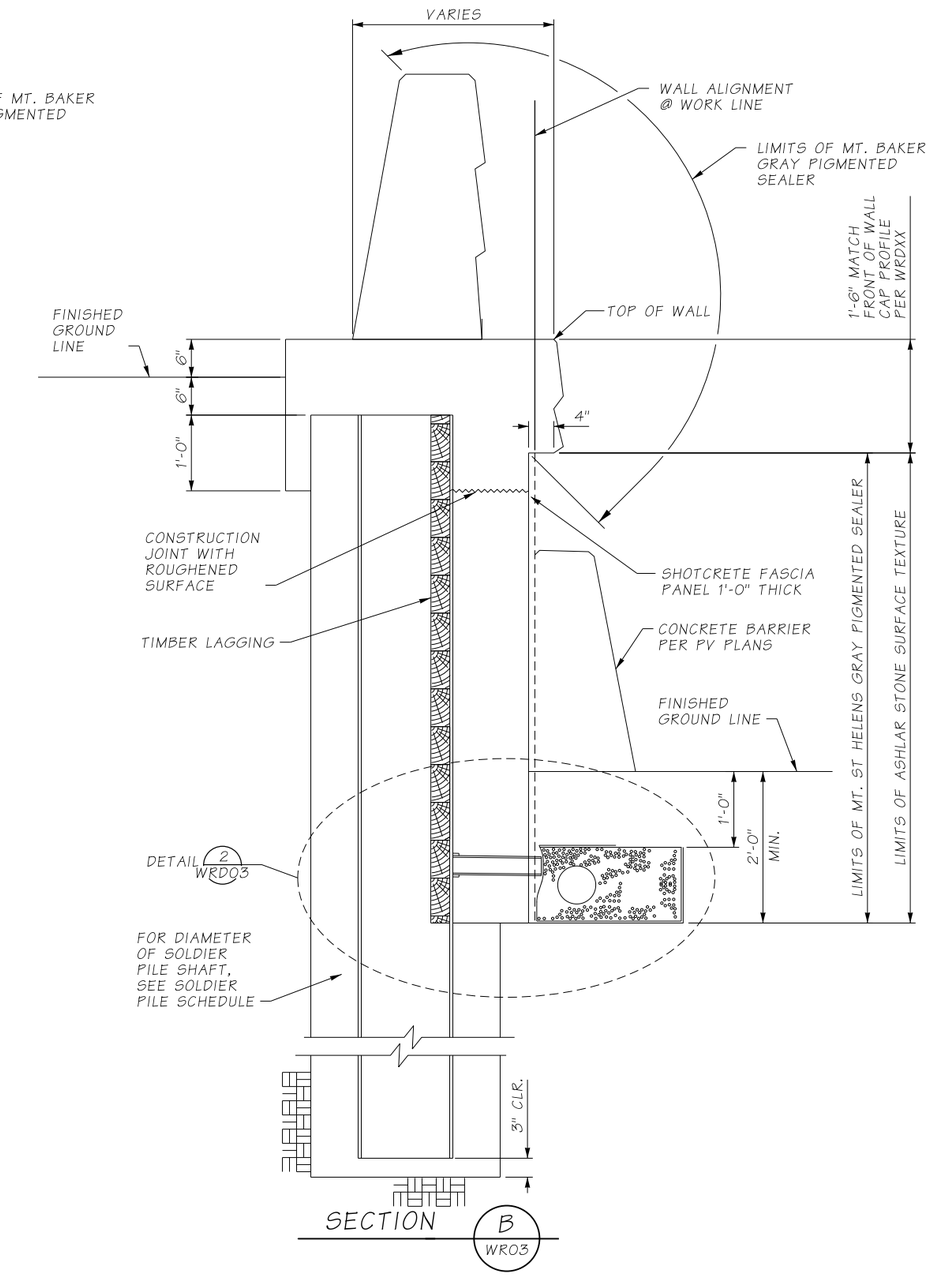
WALL 4 DETAILS

PLAN REF NO
WRD12

SHEET
OF
SHEETS





NOTES:

1. FOR SOIL NAIL WALL DETAILS, SEE WRD06 AND WRD07.
2. FOR SOLDIER PILE WALL DETAILS. SEE WRD01 AND WRD03.

FILE NAME	XL5464_PS_WRD_13.dgn
TIME	11:18:33 PM
DATE	12/30/2021
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DESIGNED BY	Y. POLYAKOV
ENTERED BY	D. DE LA CRUZ
CHECKED BY	
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

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REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER		
CONTRACT NO.		LOCATION NO.

STATE OF WASHINGTON · MERIT OVIR · NO. 1396 EXP. · LICENSED LANDSCAPE ARCHITECT
DATE
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DATE
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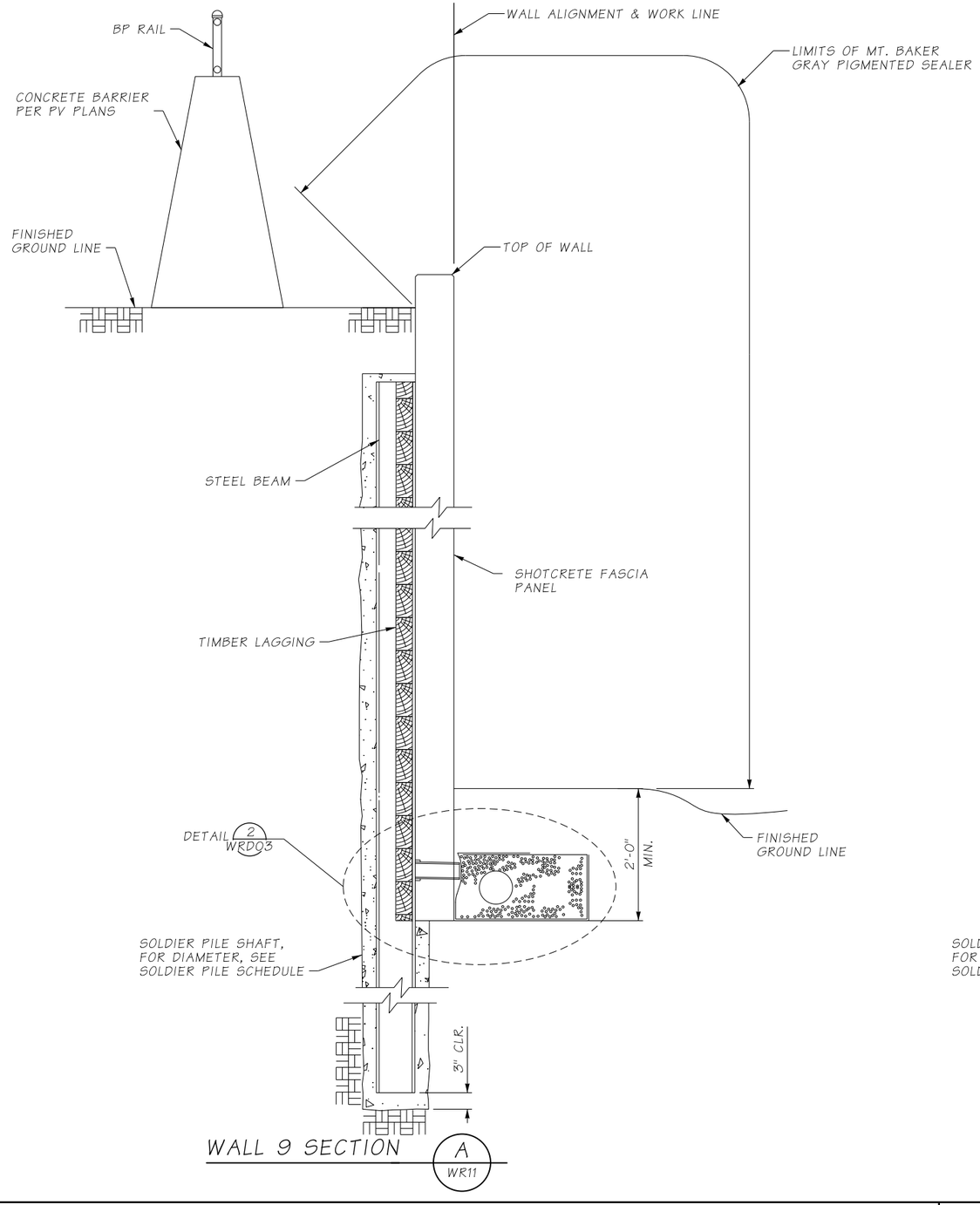
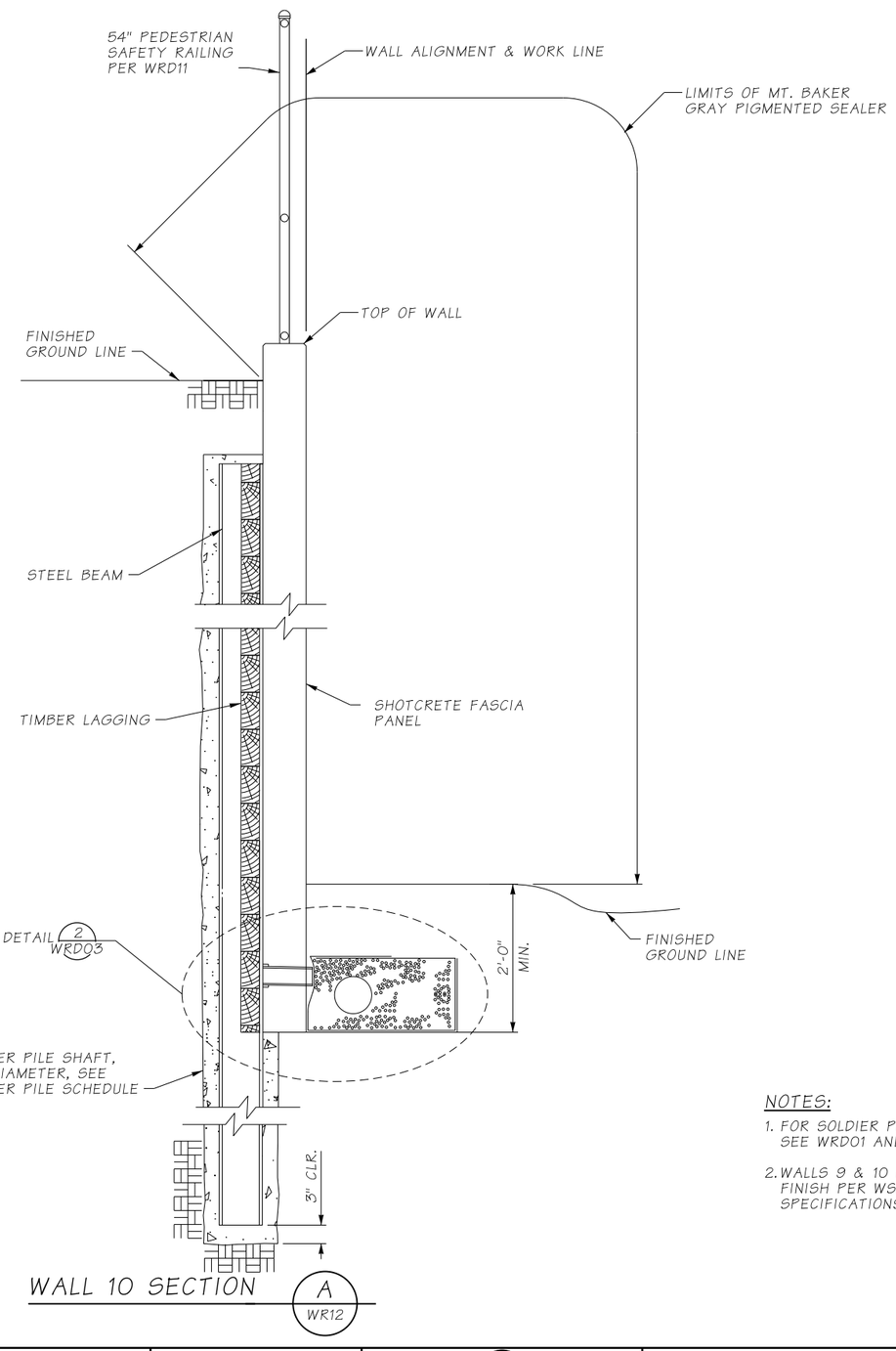
WALL 3 DETAILS

PLAN REF NO
WRD13
SHEET
OF
SHEETS



WALL 9 SECTION A WR11



WALL 10 SECTION A WR12

NOTES:

1. FOR SOLDIER PILE WALL DETAILS, SEE WRD01 AND WRD03.
2. WALLS 9 & 10 HAVE A CLASS 2 FINISH PER WSDOT STANDARD SPECIFICATIONS 6-02.2(14)B.

FILE NAME	XL5464_PS_WRD_14.dgn
TIME	11:19:36 PM
DATE	12/30/2021
PLOTTED BY	wsppw14ics02$
DESIGNED BY	A. JESSMORE
ENTERED BY	D. DE LA CRUZ
CHECKED BY	Y. POLYAKOV
PROJ. ENGR.	E. PAO
REGIONAL ADM.	

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION	DATE	BY

REGION NO.	STATE
10	WASH

JOB NUMBER

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.

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WALLS 9 & 10 TYPICAL SECTIONS

PLAN REF NO WRD14

SHEET OF SHEETS